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1. Davidson, D. T., Jr.; Lombroso, C., & Markham, C. H.: *New England J. Med.* 253:173, 1955.
2. Zimmerman, F. T.: *New York J. Med.* 55:2338, 1955.

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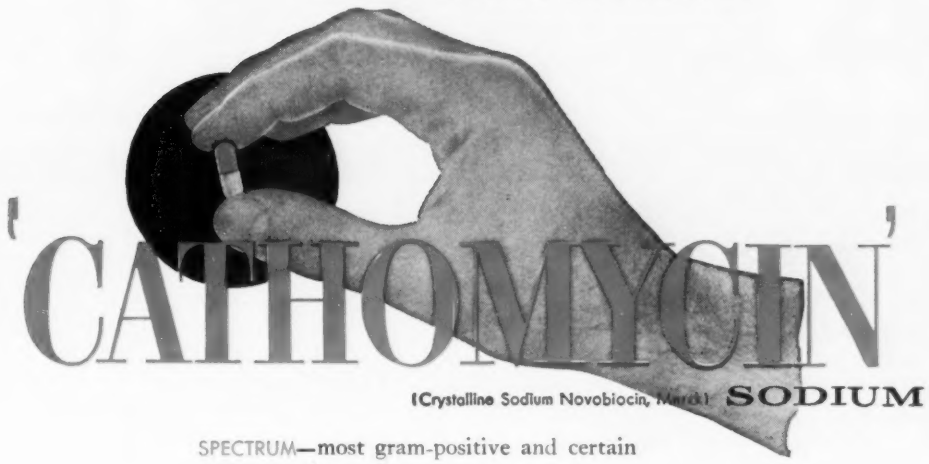

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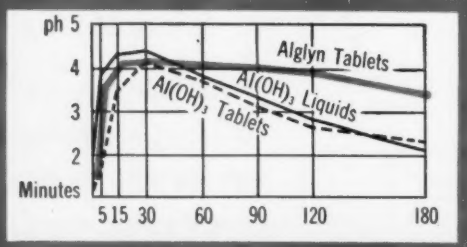

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1. Rossett, N.E. and Rice, M.L., Jr.: Gastroenterology, **26**:490, 1954.
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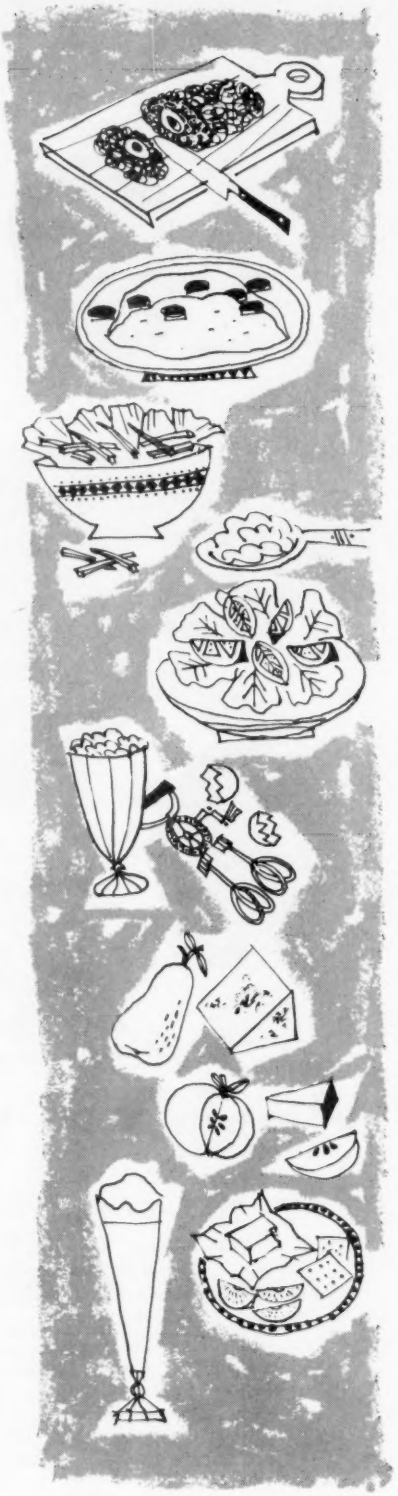

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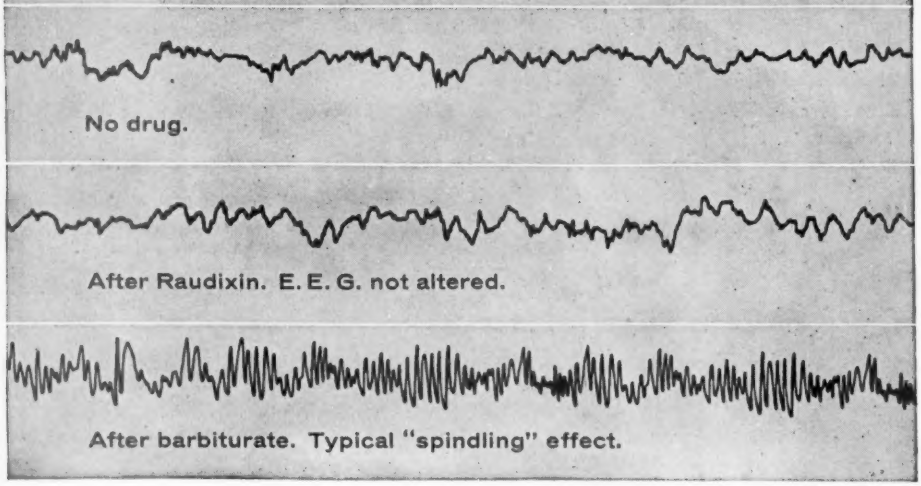
WHAT IS THE DIFFERENCE BETWEEN A TRANQUILIZER AND A SEDATIVE?

Comparison of the effect of Raudixin (tranquilizer) and a barbiturate (sedative) on the cortical electroencephalogram



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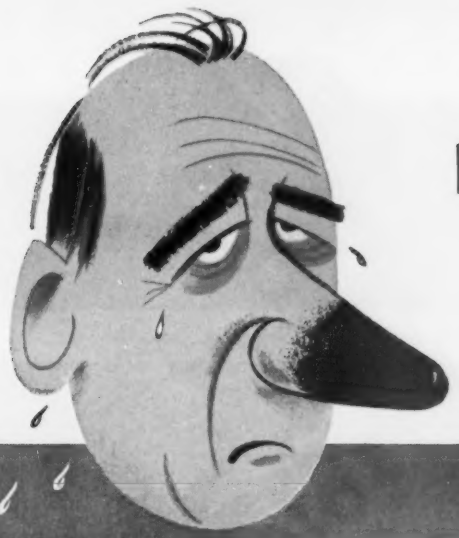

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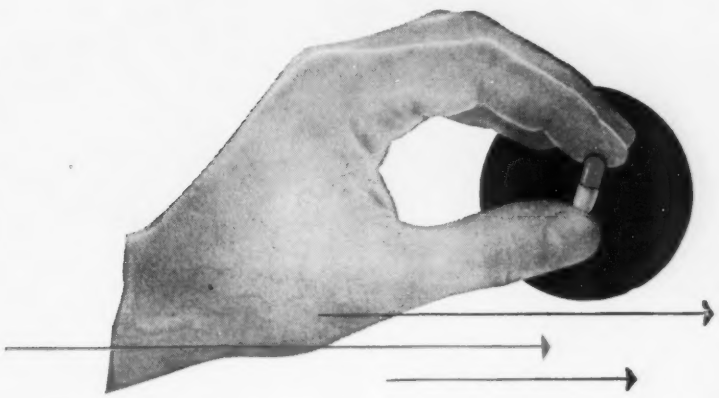

to overcome specific
infections that do
not respond to any
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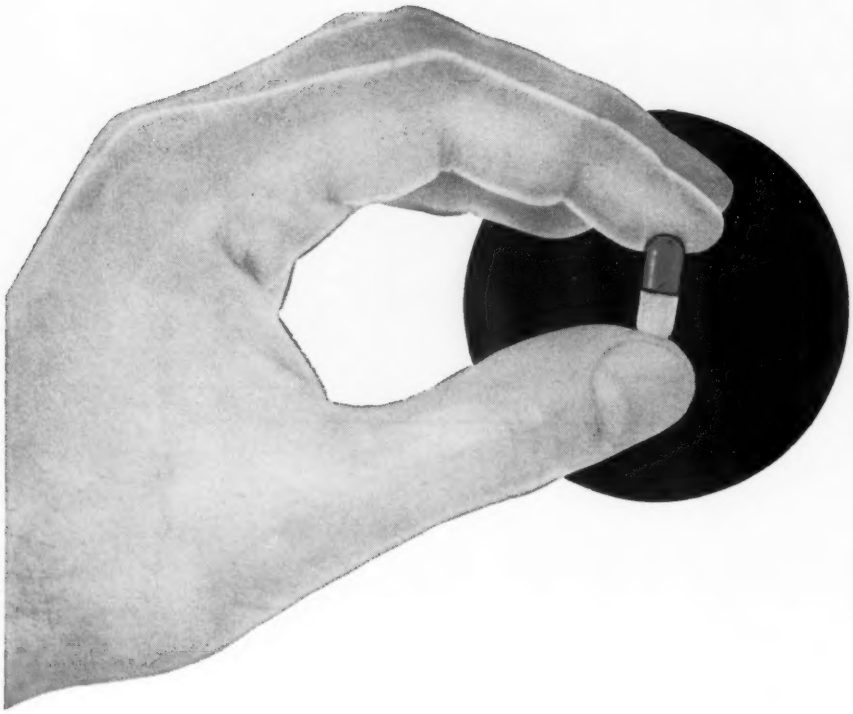
antibiotics....[1,2,3]

New...



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TOLERANCE—'CATHOMYCIN' is generally well tolerated by patients. [5,6,8,9,10,11]

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(Crystalline Sodium Novobiocin, Merck) **SODIUM**

ABSORPTION—'CATHOMYCIN' is readily absorbed [5,6,9] and oral dosage produces significant blood and tissue levels which persist for at least 12 hours.[7]

INDICATIONS: Clinically 'CATHOMYCIN' has proved effective for cellulitis, carbuncles, skin abscesses, wounds, felons, paronychiae, varicose ulcer, pyogenic dermatoses, septicemia, bacteremia, pneumonia and enteritis due to *Staphylococcus* and infections caused by susceptible strains of *Proteus vulgaris*.[6,7,8,9,10,11,12,13,14] Also, it is of particular value as an adjunct in surgery since staphylococcic infections seem prone to complicate post-operative courses.

SUPPLIED: 'CATHOMYCIN' Sodium (Crystalline Sodium Novobiocin, Merck) in capsules of 250 mg., bottles of 16.

'CATHOMYCIN' *is a trademark of Merck & Co., Inc.*

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Based on an impressive background of achievement attained over a period of four years involving both long-term and short-term therapy in all the major forms of arthritis, BUTAZOLIDIN is recognized as one of the most effective anti-arthritic agents currently available.

relieves pain

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BUTAZOLIDIN being a potent therapeutic agent, physicians unfamiliar with its use are urged to send for literature before prescribing it.

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BRAND OF OXYTETRACYCLINE

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The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

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Yes, smoother taste because there are

TWICE AS MANY FILTERS IN EVERY VICEROY TIP

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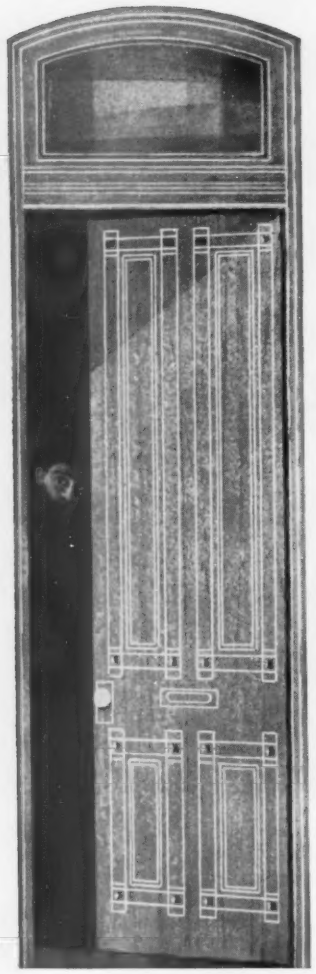
Viceroy's exclusive filter is made from pure cellulose—soft, snow-white, natural!



'Thorazine' relieved this patient's anxiety, tension and fear and made it possible for him to return to work.

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results—*excellent* · edema—*rare*

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Deformed hands of woman with rheumatoid arthritis before therapy. Unable to open hands.

After two weeks on METICORTEN, *patient is free of pain and can open hands completely.*

Acutely swollen, painful knees in man with rheumatoid arthritis before therapy.

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produces superior results — greater symptomatic relief and longer-lasting remissions — in both rheumatoid arthritis and osteoarthritis.

SUPPLIED: SALINE SUSPENSION HYDROCORTONE-T.B.A.—25 MG./CC., VIALS OF 5 CC.

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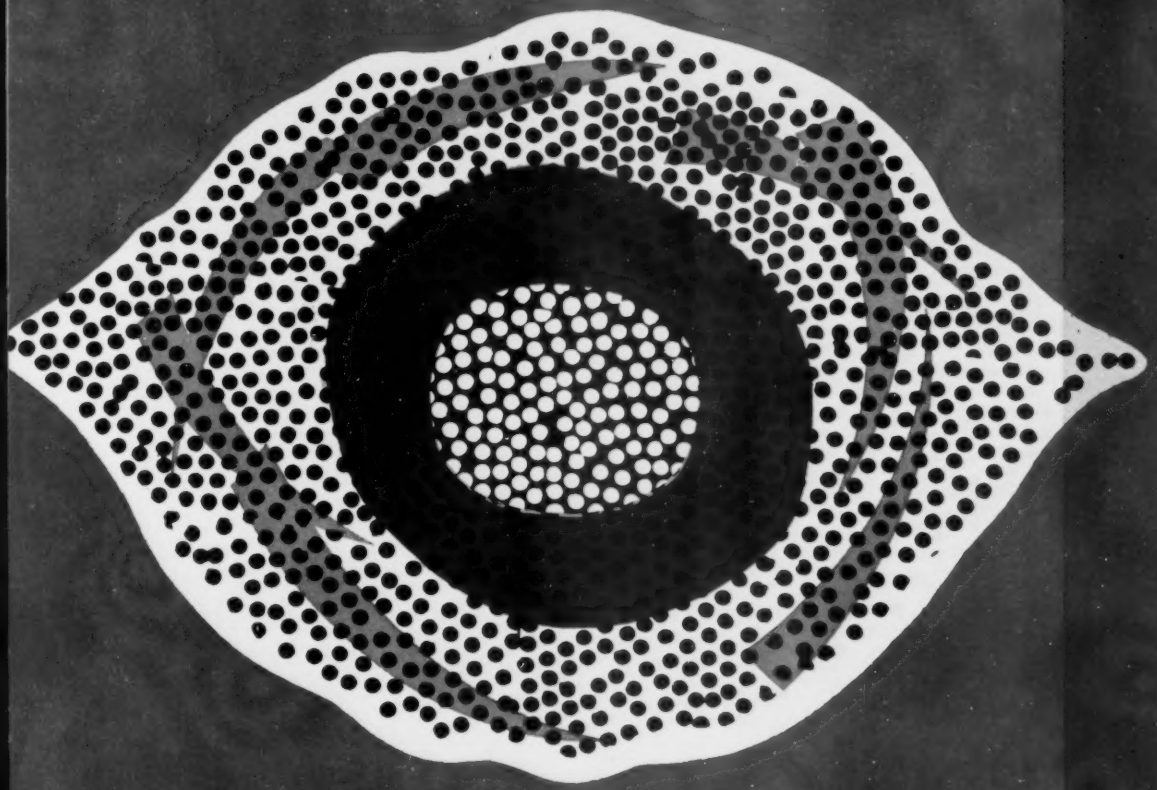
for inflammatory, allergic, infectious or traumatic eye conditions amenable to topical therapy—rapid, potent, topical Meti-steroid and anti-infective action

supplied: METIMYD Ophthalmic Suspension-*Sterile*: prednisolone acetate (METICORTELONE Acetate) 5 mg. per cc. (0.5%) suspended in an isotonic buffered and preserved solution of sulfacetamide sodium 100 mg. per cc. (10%), 5 cc. dropper bottle. METIMYD Ointment with Neomycin: each gram contains 5 mg. prednisolone acetate (METICORTELONE Acetate), 100 mg. sulfacetamide sodium and 2.5 mg. neomycin sulfate (equivalent to 1.75 mg. neomycin base); ⅛ oz. tube, boxes of 1 and 12.

METIMYD,* brand of prednisolone acetate and sulfacetamide sodium.
METICORTELONE,® brand of prednisolone.
*T.M.

. . . in topical eye therapy



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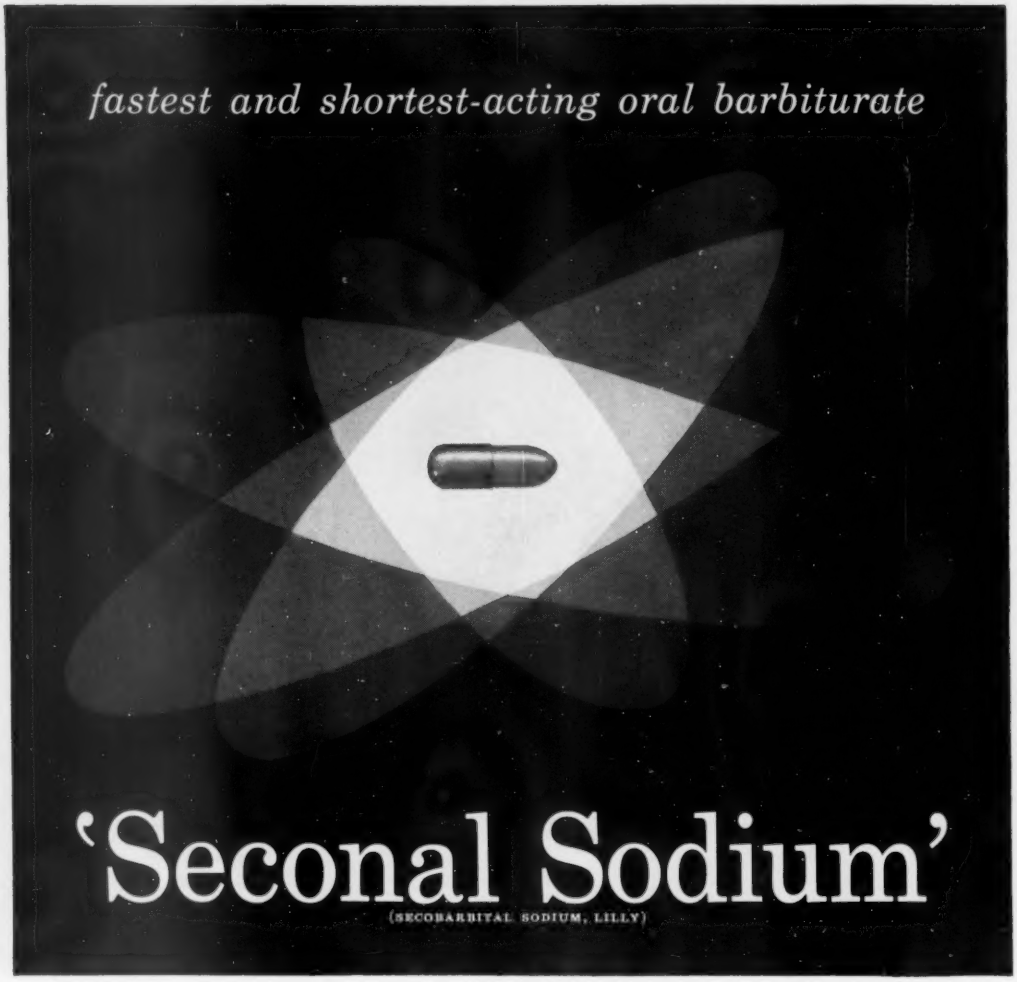

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The Virginia
MEDICAL
MONTHLY

July, 1956
Vol. 83, No. 7
Whole No. 1249

Guest Editorial . . . .

The Changing Scene

SINCE the advent of the general use of "Sulfa" drugs about twenty years ago and the more recent experiences of World War II, the clinical practice of medicine and surgery has undergone a distinct metamorphosis. The general body of knowledge related to physiology, pathology, preventive medicine, diagnostic acumens, specific medications, and surgical techniques has expanded rapidly. There has been a dramatic improvement in the caliber and number of hospitals throughout the State of Virginia. The recent advances in medicine and surgery have been disseminated quickly throughout the area. As a direct result the death rate has steadily decreased and the general health of the state-wide community has improved. Based on these considerations one might conclude that if there are sufficient hospital beds and medical personnel all suffering could be controlled and maximum community health attained. However, concurrent with the increase in the medical "Know-How" and hospital beds there has been:

(1) A steady rise in hospital bed utilization

(2) An increase in the length of hospitalization, and

(3) A continued growth in the number of physically and emotionally disabled.

Does this mean that medical care is decreasing in effectiveness? Does it indicate poor treatment by physicians?

The answer to these questions is a definite—NO! In fact, it is a laudable salute to all physicians in that we are foraying into areas which were unapproachable twenty years ago.

Acute infection is no longer an overwhelming problem, but irreparable damage may be done to an organ system before the antibiotics are started.

Survival after prolonged coma following head injury is not unusual because of excellent surgery and a fuller understanding of fluid balance and nutrition. Some patients may recover reasonable function while others may live in a semi-decerebrate state for many years.

Patients regularly survive massive cerebrovascular accidents and live for years with a severe hemiplegia and often aphasia. The nursing homes are filled with such patients.

Extensively, involved and dramatic surgery is done daily in every community hospital in the Commonwealth. The operative mortality is low. The very large portion of patients return to their normal way of life. However, there is a significant group who cannot attain such an excellent end result.

Every day physicians are saving lives. However, because we are extending services

into the realm of the complex we are creating widespread problems in two major areas:

(1) *The average age of the population is steadily increasing.* Approximately 65% of the persons 65 years and older are supported by public funds. Less than 15% of this group produce more than meager self-support. A very high portion of the hospital beds are occupied by this age group.

(2) *The number of surviving disabled persons is steadily increasing in all age groups.*

Therefore, the change resulting from our present plane of medical and surgical management is that death is giving way to dependent longevity and disability. This is striking progressively deeper at the structure of the home, the community, and the nation. Because we as physicians are playing a major role in creating these problems it is incumbent on us to seek solutions.

Obviously there is no ready formula to alleviate the situation. However, it appears to me that there are certain guides around which thinking must evolve if we are to gain the initiative in controlling the degree of disability in each community.

Firstly, the physical, emotional, social and economic well being in a patient's recovery from illness or injury is a universal concern of all physicians. With this as a basis philosophy of the practice of medicine, the patient's physician is the keystone for rehabilitation planning. The predominant number of problems are not complex and can be solved in the office or the community hospital. The optimum end result in all cases will range from bed care in a nursing home to return to the usual occupation. It is essential that all physicians be "rehabilitation minded" at all times.

Secondly, the physician must be made keenly aware of the fact that the growth of numbers of handicapped or dependent persons is an insidious process. Their ranks increase one at a time. Therefore, it is necessary for each case to be weighed carefully on its own merits so that an optimum end result can be attained. It is highly important to consider whether a hemiplegic patient should be discharged to a nursing home, or whether he is capable of learning self care so he can live in his own home, or whether he can return to some occupation.

Finally, it is the duty of each physician to be acquainted with the various resources he has at his disposal in coping with rehabilitation problems.

For the sake of brevity I will assume that you are acquainted with the Public Welfare, Social Service and Crippled Children's Bureau programs in the Commonwealth, and I will pass on to four less familiar resources.

(1) During the past decade physical therapy clinics have been established in many areas of the State. At present units are in operation in Arlington, Alexandria, Richmond, Petersburg, Norfolk, Newport News, Portsmouth, Suffolk, Danville, Roanoke, Lynchburg, Charlottesville, Staunton, Harrisonburg, and Winchester. Physical therapy thoughtfully prescribed by any physician can be very useful in reducing pain, strengthening muscles, regaining movement, teaching the use of artificial limbs and braces, teaching coordination and ambulation, accessing physical stamina, etc. Physical treatment is often important in reducing the degree of potential disability.

(2) The Vocational Rehabilitation Service of the State Department of Education, Richmond, Virginia, now has ten offices strategically located throughout the Commonwealth. The purpose of this organization is to make funds and advice available to assist physicians in the rehabilitation of adult (sixteen to sixty years of age) disabled individuals. If you have patients who are disabled for work and there is a reasonable prospect the treatment and/or vocational training will make them employable, you will find contact with the Vocational Rehabilitation Service of great assistance.

(3) For more complex cases requiring rehabilitation planning the family physician will be interested in the undertaking at the Medical College of Virginia and the University of Virginia Hospital.

During the past three years the Baruch Center of Physical Medicine and Rehabilitation of the Medical College of Virginia has been converting from a research organization to a medical rehabilitation center. About eighteen months ago we started admitting patients to the Physical Medicine and Rehabilitation Service in the Center, and the organization of this unit is now attaining a satisfactory level of function. The Baruch Center is now an integral unit of the Medical College of Virginia Hospital. The services available through the Center are: (1) Medical evaluation and treatment. (2) Consultation with all other medical and surgical services at Medical College of Virginia. (3) Psychological testing. (4) Pre-vocational assessment. (5) Prosthetic evaluation and treatment team. (6) Cerebral palsy evaluation and treatment team. (7) Speech and hearing evalution and treatment. (8) Prescribe physical and occupational therapy and, (9) All significant patients are reviewed by the Rehabilitation Evaluation Board. The services of the Center are extensive for in- and out-patient care to children and adults, white and colored. The present program is still relatively small, but within another year approximately sixty beds will be available for the Medical Rehabilitation Center.

Excellent plans have been initiated at the University of Virginia Hospital in Charlottesville. The aim of the program at the University is to coordinate the service programs of a large number of community agencies with the consultative resources of the University of Virginia Hospital, the School of Education, the Speech and Hearing Center, the McGuffey Reading Clinic, the Children's Service Center, the Department of Psychology, the Division of Educational Research, and others.

In order to carry out these objectives the Dean of the School of Medicine has appointed a Rehabilitation Advisory Committee. The function of this group is to formulate policies and supervise the administration of the program. The principal projects which are being developed are:

(a) The Children's Rehabiltation unit which will be built in 1957 will be designed to offer a program of rehabilitation to handicapped children.

(b) An integrated Adult Rehabilitation Program is being initiated. This program will be directed to developing "rehabilitation mindedness" throughout all departments in the hospital and should prove to be highly effective.

(4) For disabled persons who need training in vocational skills, the Vocational Rehabilitation Service has established a Vocational Rehabilitation Center at Fishersville, Virginia. This you may know as the Woodrow Wilson Rehabilitation Center. I particularly draw this institution to your attention because services secured for patients may be misconstrued, in that this is not a hospital. It is a school wth a capacity of four hundred persons and a thirty-one bed infirmary.

Woodrow Wilson Rehabilitation Center is used properly when a patient is referred for vocational training and needs some physical and/or medical treatment on an ambulant basis. In addition, there are comprehensive services related to vocational, diagnostic, and physical restoration. At this level this vocational rehabilitation center is highly effective.

In conclusion, to gain better control over the increasing numbers of disabled, the family physician is the keystone in rehabilitation planning. He must know and use the resources available to him as he deems necessary.

HERBERT W. PARK, M.D.

EDITOR'S NOTE: Dr. Park is Medical Director of the School of Physical Therapy and Medical Director of the Branch Center of Physical Medicine of the Medical College of Virginia.

Old Doc

CHARLES C. DENNIE, M.D.
Kansas City, Missouri

THIS IS THE STORY of the professional life of a country doctor. He practiced medicine in the last half of the nineteenth century and the first quarter of the twentieth. I know that all of you would rather listen to the story of a vibrant personality, by one who knew him well, than to listen to the classical narrative of a professional medical historian and besides, there is little in medical history to acquaint one with the trials, tribulations, the successes and the failures of a medical man during that period of time. Why that period of history should be so blank no one knows. The only three great things that were accomplished during that time or a little before were the operation of Ephraim McDowell for the removal of an ovarian cyst, the discovery of chloroform by Liebig and the first utilization of sulphuric ether by the dentist, Morton, in the Massachusetts General Hospital in 1840. When my doctor began to practice medicine he employed the same type of therapeutics that had been in use for over two hundred years. I selected Old Doc as the medium through whom I could relate the story of medicine of his time. He was my ideal and my patron.

Old Doc was not an old man when he started to practice medicine in our village. He was a Canadian and had just graduated from the University of Michigan Medical School. He was the first passenger on the first passenger train of the old Kansas City, Missouri River and Gulf Railway that passed through our village in 1869. That, of course, was many years before I was born. The great Continental Railway had just been completed over the vast plains and mountains of the Western half of the United States.

He did not select the village in advance. He was undecided just where to begin practice but he wished that place to be a new country, a place where he could help develop it and watch it grow. A few miles back he saw the forest primeval, the home of the oak and the walnut extending for miles on either side of the railroad. The heavy green foliage was like that which he had seen in paintings. None but a primeval forest has the dense green leaves that form a canopy through which the sunlight does not penetrate. When he stepped down from the platform a curious sight met his eye. Accustomed as he was to the civilized and sophisticated manner of the people of Toronto and Ann Arbor, these were strange people who crowded the depot platform. The villagers had gathered on that platform to see the first train come through on its way to Memphis. The entire population of the village was there excepting those who were ill. The men wore hickory shirts and patched breeches, the women their shawl-like bonnets and hoop skirts. The little boys who were running after each other and shrieking were almost half naked, and the clothes they wore held in place by a single gallus. There were two Indians with wool hats upon their heads and dirty blankets around their shoulders, and one Negro freedman who had lived there for many years.

Old Doc, who was young then, looked at the crowd seriously and they looked at him. They saw a medium sized man with square shoulders and proud bearing, a full bearded man with grey eyes and black bushy hair. When he stepped down from the coach he had his entire possessions with him—two saddlebags and a surgical case. One of the saddlebags carried his extra clothes, the other all of his medicines with which to treat the ill and must last a long time before they could be replenished. While the drugs were not numerous they were very effective. There was opium mass, Cinchona bark, tincture of aconite for reducing fevers, calomel pills to stir up the liver, turpentine for sterilizing wounds, chloroform liniment for aching joints, blue ointment for treating syphilis, tincture of arnica, rhubarb for constipation, potassium iodide as an alternative, strychnine pills for the spring fever, salves, chartae and pills of various other kinds. About him in the timber he later found the May apple root or mandrake whose fresh juice he used in the treatment of ringworm of the skin. His surgical case was his pride. In it were the long keen rapier-like knives, four in number, ranging from ten inches to six, for amputating arms and legs, his scalpels of different sizes for opening abscesses, his big butcher saw for cutting the bones for amputations, the spade-like saw only two inches in breadth with which he could reach into openings and saw off pieces of bones, and the little curved saw for amputating toes and fingers. He had curved sharp pointed retractors for picking up

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arteries and nerves, and needles of all sizes for suturing, together with the linen sutures. All of the metallic instruments were coated with a thick layer of axle grease. When he used them be boiled them in sodawater to remove the grease. He had no idea of sterilization for Old Doc started to practice medicine long before Louis Pasteur had discovered the various pathogenic organisms and before the great German and French scientists had identified the organisms that produce disease. He was naturally a neat and clean person who would always wash his hands before doing an operation of any kind and simply boiled his instruments to remove the dirt and grease.

When he stepped off the train a thin July rain was falling and had been falling for several days. After the train had departed he made his way through the mud and slime to the one store that was situated a couple of blocks from the depot. Entering the fly infested place through the unscreened door he saw a man with a pale yellow skin standing behind the counter, whom he took at first to be an old man but upon closer examination saw that the man was simply ill. The storekeeper asked to serve him. The Doctor replied "I am seeking a place to practice medicine and from the looks of you I think you need me. Is there anything I can do for you?" The storekeeper replied that there was, and related the following story: "In the battle of Shiloh I was wounded in the groin by a spent minie ball which cut across my urethra and opened it. Luckily I escaped gangrene but I was in the hospital for a long time When the wound healed it restricted the flow of water. Evidently it has become inflamed for I have not been able to entirely empty my bladder for several days." There were two instruments Old Doc carried on his inside coat pocket that were his pride and joy. One was a silver catheter and the other a tooth forceps and at that time they were probably the only two of their kind in the whole of eastern Kansas. Taking the storekeeper into a back room Old Doc laid him on a work table and opening a can of lard, took his silver catheter from his pocket, greased it well and relieved the storekeeper. He was to do this for many years until the rubber catheter came into use. Then he simply bought them for his patients and allowed them to treat themselves. Many of the old men thus catheterized themselves for years. If they didn't have lard or butter with which to grease them they would often spit on the catheter. It was never boiled or even cleansed. It seems that these indivduals became used to their own infection and would even grow thickened bladder walls without much inconvenience to themselves, but God help these old men when an enthusiastic young doctor in later years undertook to wash out their bladders. The patients developed chills and fever and some of them came nigh to dying. If left alone many of these men died of old age in spite of the use of the catheter for fifteen or twenty years.

It must be remembered that sanitary conditions both in the country and the city were very bad. In fact they were about on a par with sanitary conditions found in an Arab village of a thousand years ago. The wells were sunk on the downslope from the barn where the spring rains washed in not only soil but the excreta of animals. No one ever thought of washing the udder of a cow and strainers were put upon milk buckets in order to strain out the filth that had fallen from the cow's udder into the milk. Infant feeding was a problem. Most mothers breast fed their infants but those who did not allowed their babies to nurse milk from bottles that had never been heated. When the child got old enough to take solid food the mothers chewed the food first then put it in the babies' mouths. Practically all of the mothers had pyorrhea and decayed teeth. One does not know how many cases of tuberculosis were thus transferred from mother to infant. The tuberculous patient lived with the rest of the family, ate at the table with them, if he could sit up, and his dishes were washed with those of the family. Whenever he coughed or sneezed no attempt was made to guard others against the sputum that flew from his mouth. Spitting on the floor was not considered to be a mark of bad taste. Tuberculous cattle were not recognized consequently there were a good many cases of tuberculosis of the bones in our village and the surrounding country. Into this primitive village as far as sanitary conditions were concerned Old Doc started his practice.

He had been there but a month when the usual typhoid epidemic manifested itself. Old Doc had read an article written some fifteen years before concerning the treatment of typhoid fever. It was the most modern approach that he had to this subject. The article was published in 1854 in the J.A.M.A. It was a symposium in which three men gave their opinions of the treatment of typhoid fever and the fourth man, the interlocutor, discussed the virtues of all. The first essayist would feed the typhoid patients nothing and would allow them hardly any water. He stated that his patients did badly upon food. Of course at the end of the fever's raging he admitted that his patients were mere skeletons. The second essayist would feed them a full diet of soft

foods. The third would do nothing but bleed them. The interlocutor in reviewing the three essays commended each man upon his efforts but decided that bleeding was the best method of treating typhoid fever. Old Doc was expecting an epidemic of typhoid fever and had already decided what he would do. He would give them a moderate amount of soft foods, excluding milk for he stated that milk made large stools, thus his patients would not have a perforation of the intestines for if they did have, there was then no surgical procedure by which the guts could be mended and the patients would all die. It was not until 1886 that Rudolph Krönlein removed the first appendix and had a living patient. Old Doc decided to keep the rising temperature within bounds by temperate bathing and to train people in the family and in the neighborhood in the methods of simple nursing. He probably had fifteen cases of typhoid fever that year and he didn't lose one of them. He was even forward enough to dig pits lined with quicklime into which he threw the excreta of the typhoid patients.

The bloody flux was a problem with all the children from two to ten years of age each summer. The mothers had no idea of proper feeding and would allow the children to eat green corn even when they were in the midst of this enteritis. The ravages among the infant population were great. It was a disease which produced bloated bellies, swollen legs and skeleton forms that retarded the children's growth for years. Old Doc treated these patients with small doses of opium mass and later with paregoric, restricting their diet to smooth foods. Until the modern antibiotics entered the field this was as good a treatment as had ever been devised for these children.

As winter came on the really fatal diseases made their appearance. The worse of all was the black diphtheria. All except the father of a family of five over on Bull Creek were wiped out by this disease. Old Doc said that diphtheria had a distinct odor and he could diagnose it by that odor when he stepped into the room. The same was true of typhoid, measles and a number of other diseases. This was a valuable clinical observation for many times he could diagnose the disease before the diphtheria membrane appeared in the throat and over the uvula. He claimed that when he entered a room his nose was his best diagnostic possession. There wasn't anything he could do for diphtheria except to swab the throat with turpentine and use turpentine stoops around the neck. The membrane would progress rapidly down into the lungs and when it loosened, if the victim were alive, he would cough out a cast of almost all of the bronchial tubes. A few of the cases survived but often suffered many complications, the least one being paralysis of the throat muscles so that water, instead of being swallowed, was blown out through the nose.

Old Doc had one case of peripheral neuritis or paralysis of every part of the body excepting the jaws and the eyes due to the toxins of diphtheria. This patient finally recovered. Diphtheria antitoxins and lockjaw serum were not devised by Behring until 1892 but as soon as it was available Old Doc used them. He was probably one of the first men in Kansas to use this life saving serum. He saved the life of the son of the most prominent citizen and thereby earned everlasting gratitude not only of that man but of all of the parents of children he has saved.

Lockjaw was no problem to Old Doc in the early days. If anyone ran a rusty nail in his foot in the barnyard Old Doc knew just exactly what to do. Of course it is well known that the excreta of the horse contains the lockjaw bacillus in immense numbers, but it didn't mean that every time anyone stepped on a nail in a barnyard that he died of lockjaw. Some people paid no attention to the puncture wound and survived. Our Doctor split open the wound with a sharp bistory, being sure that he reached the bottom of the wound, and left a wick of turpentine in the open sore. No one ever developed lockjaw during all of his practice in the village. How different the picture today. Should one run a rusty nail in his foot in a barnyard he would immediately be given lockjaw antitoxin and injections of antibiotics in his hip. He might even be sent to the hospital for this treatment. The patient would not develop lockjaw but on the ninth or tenth day he would develop sore joints, low fever, pains and aches which would necessitate his going to the hospital where he would be given adrenalin, ACTH and cortisone. About the time he got over the serum sickness he would develop terrific reaction from his injected penicillin which would require another stay of a week or ten days in the hospital. If the patient got out of the hospital with a bill of less than $500 he would be doing well. Old Doc charged his patients fifty cents.

Lung fever followed close on the heels of diphtheria. The mortality was extremely high. The common practice in those days was to put the patient to bed with blankets, quilts and even goose feather beds on top of him. All of the windows in the room were closed and the cracks calked with pieces of old cloth. The victim was sewn up in a

cotton padded jacket from his neck to his hips. Not a current of air was allowed to strike him. Quinine and calomel were the only things used to combat the fever. If that got too high he was given tincture of aconite to lower it. Old Doc didn't believe in this kind of treatment. He allowed air to come into the room but no air current was to blow directly on the patient. He was given a moderate amount to eat, the ubiquitous quinine and calomel were administered. No padded jacket was sewn on him but mustard plasters were applied to his back and chest. Experimental work in later years showed this to be very good treatment. I think that his rate of mortality was much lower than it was in those who were treated in the classical manner.

Erysipelas was not uncommon. It was treated with cranberry poultices or with fresh cow dung. Old Doc was never guilty of using the latter on any of his patients. In the spring there was the usual epidemic of measles and chickenpox. The morbidity was very high in measles and there were some deaths. It was often followed by middle ear infections and sometimes by mastoid disease. There were no operations for this condition and many of the patients died. In some instances the measles would not break out on some member of the family although he had the red eyes, the coughing and a fever. In these cases the old women advised sheep dung tea to be given very hot, but Old Doc, when consulted, gave them hot sassafras tea. Tuberculosis was rampant in the whole United States at that time. I have no doubt that a quarter of the entire population was affected by this disease. There was no treatment for it. Scott's Emulsion of Cod Liver Oil was given in some hopes that it would help. Patent medicines were in their heyday, none of them any good for this disease but Piso's Consumption Cure was the favorite. There were two hunchbacks in our community and three children with tuberculosis of the hips. This is a high percentage in a population of only two hundred. It was not known at that time that the disease was transmitted to human beings from the milk of tuberculous cows.

Venereal diseases were very common. The majority of the young men occasionally went to the big city where they contracted gonorrhea. One always heard about the purity of rural communities yet Old Doc treated three cases of congenital syphilis and numerous ones of the acquired type. He is the one who always said "One night with Venus and three years with mercury". He gave iodides in large doses and over long periods of time. His treatment for gonorrhea was the injection of one-fourth of one per cent of silver nitrate. Rheumatism was treated by giving the pulverized bark of the willow tree and by the administration of cooked cranberries, both of which contain some salicylic acid.

I remember the first time that I ever met Old Doc. I had been herding our cow along a country lane when this animal became cantankerous and I had to chase her through a hedge row. In the process I ran three hedge thorns in my big toe. One thorn was broken off. In three days my toe was swollen badly, red streaks ran up my leg and I had a tender knot in my groin as large as a black walnut. I went to see Old Doc about it. He took out the thorn and told me to go home and have my mother make a poultice of moldy bread and milk and to keep it on my foot for five days, keeping it damp by the addition of small amounts of sweet milk. He believed that moldy bread had particular virtue along this line. In five days my foot was practically well. Many folks in those days didn't consult the doctor for minor ills. If the men became galled while plowing corn they stopped at the end of the field where the sun beat down upon the fine dust that the quails had made and taking down their trousers fanned this fine dust upon the affected places. They got almost immediate relief. We know now it was because of the antibiotics contained in the soil. During corn shucking time in the fall every farmer had a can of pine tar nailed to the wagon bed. The application of this tar to the cracks in his hands healed them.

No one knows why chloroform was not used as an anesthetic before the 1870's by the general practitioner in both the city and the country. Liebig had compounded this chloroform in 1834, six years before Morton used sulphuric ether to produce complete anesthetic state. Old Doc did use cholorform in the 70's in his obstetrical practice. At that time most of the people and especially the doctors thought that pain and suffering were a natural part of childbirth and that the women should bear these tortures without complaint. Old Doc thought differently. When he went to one of the houses of the village or a farm house to deliver a baby he took a can of chloroform with him. When it was time for the baby to be delivered and the pains were very close together he tied a string around the upper end of the can and tied the other end of the string to the head of the bed so that the can of chloroform hung within easy reach of the patient. He punched a hole in the top of the can, placed a crude chloroform mask over the patient's nose and told her to take the can in her hand and drop the chloroform on the

mask, all the while counting one, two, three, etc., dropping about fifteen drops of chloroform to the minute. When the can dropped from the patient's hand Old Doc got busy and delivered the baby. If the patient came to before the delivery was done he had her repeat the process so that she was under safe anesthesia most of the time and suffered very little pain. If there was a tear in the perineum Old Doc sewed it up then and thus avoided a great many of the perineal weaknesses that developed in women who have been torn by childbirth. This was a much safer procedure than to have the anesthetic administered by the husband or a neighbor woman. They might give too much but the patient would always drop the can and stop the anesthesia before she was under too deeply.

The Old Man and the Madstone was an institution in our part of the country. He lived over by Wea Creek and possessed one of these miraculous stones handed down to him by his grandfather. It had been tried and tested on dozens of cases and everybody for miles around knew of its great power. Their fathers and grandfathers had recounted many cases of hydrophobia that had been prevented by the use of this stone. The thing itself was a round brown stone like glazed sphere composed of the matted hairs swallowed by the Virginia deer as he cleansed his hide with his tongue and after a time had regurgitated it.

Rabies or hydrophobia is a disease that has attacked man for hundreds of centuries. At no time has there ever been an extensive epidemic but the disease has been endemic in all countries at all times, althought the actual number of persons afflicted has been extremely small. The dog is the most common vector. It was not until Pasteur had consummated his experiments that there was any hope for the poor wretch who had been bitten by a rabid animal. The immunization treatment of Pasteur must be started before the disease has had time to entrench itself in its victim. In spite of poor communications at that time the news of Pasteur's great discovery spread to far-off countries but the rural people of the nineteenth century knew nothing of this discovery. If they had heard of the vaccine they would have considered it a new fangled and dangerous idea. They had extreme confidence in the Mad Stone. If a person were bitten by a dog the family took the injured member to the old man with the mad stone. He soaked the stone in sweet milk and then applied it to the site of the bite. If it stuck to the wound the diagnosis was certain. The dog was rabid. The stone was sucking out the poison. It was alternately soaked in milk and applied until it fell off of its own accord. The charge for the service was one dollar. Of course the majority of the dog bites were by non-rabid dogs but credit was always given to the stone. In one case it failed. A child, a hog and a calf were bitten by the same dog. The child was taken to the old man. The stone stuck in the proper manner and after it had fallen off the child was taken home. Everything was serene until about the thirtieth day when the sow went berserk, charged anything in sight, slobbered at the mouth and could not eat or drink. After three days she died. At the same time the calf began to run in circles, became paralyzed in the hind quarters and dragged itself around the lot. It could not eat or drink and foamed at the mouth until it died on the fifth day. The father believed so strongly in the efficacy of the Mad Stone that when the boy complained of a drawing in his throat he paid no attention to it. The boy claimed that he swallowed water with great difficulty. He was sent to bed. He was restless all night and when his mother brought his milk toast in the morning he grabbed the bowl with shaking hands, lifted it to his lips and spewed the whole mess over himself, his mother and the bedclothes. Then he got up and began to run around the room, falling, stumbling, running into things and butting his head against the wall. In a hoarse voice he kept calling for water, water, but he couldn't drink it. They were urged to take the boy to the big city by Old Doc who came immediately when the father told him the story. Old Doc sized up the situation accurately and told everybody to stay out of the room except the mother. He said "The Mad Stone has failed and the boy is rabid." Binding him hand and foot they loaded him into a wagon and as fast as they could drive took him to a hospital in the city. The stricken child struggled continuously against his bonds. The sweat stood out on his pale face and his eyes were wild and unseeing. He called for water, water, tanks of water in his strange hoarse voice but when the dipper of water was placed to his eager lips he sprayed it all over the room, for by that time all of his throat muscles were paralyzed and only the explosive force of his abdominal muscles remained. Then came the growls and howls due to this paralysis of his throat. They became fainter and fainter and his struggles grew less and less as the last day wore on and finally came the total paralysis. He died after five days. Old Doc knew about Pasteur's work but it was too late to do anything about it after the boy had developed the symptoms.

Folks had cancers in those days but a lesser number were afflicted then than in modern times. The two reasons that there were fewer cancers were, first that people didn't live long enough to reach the cancer age except in a few cases, and secondly, so many died of cancer without anyone knowing that any malignancy was present. There must have been many people who died of cancer of the lungs, stomach, liver, intestines and uterus but neither the doctors nor the people were aware of it. There was never an autopsy performed in our village and bodies were buried without issuance of death certificates. Some of the older men did have cancers on their skin. Some were truly enormous because there was no means of controlling them. Old Doc didn't even try to treat them because he had nothing at hand with which to do the job.

There was an old woman over on Gil's Ford on Bull Creek who had a method of curing skin cancers which she guarded so zealously that nobody ever found out what it was. Some thought she used the rain leeched liquor from the trough of the wood ash hopper and others thought she made a concoction out of ground up May apple (mandrake) that grew profusely in the forest, but whatever it was it seemed to be very effective. Whenever a customer came to see her she made a cash proposition that included bed and board. She never had more than one patient at a time. She used some kind of paste. I have no doubt that it was the same one employed in the time of Queen Elizabeth the First. At that time a paste was made of one-third by weight of white vitrol, two-thirds by weight of plaster of paris or wheat flour, the two well mixed and wetted down into a thick white mud with the spirits of wine. The old lady would mix the formula and taking a clean case knife would plaster the mixture into the cavity of the cancer and allow it to stay there until it fell out in from nine to fifteen days. The pain was terrific but she had nothing to relieve it for that was long before the time of aspirin. The patients came away from her place with great red scars on their cheeks or with holes in their noses or great gaps in their lips through which the teeth showed, but she cured some of them, and our faces are red now in modern times because we have revived that old method of treatment prescribed two hundred years ago. It is used on cancers that are resistant to x-ray and radium and too extensive for surgery.

Pompy drove up to the depot just a few minutes before the train stopped on its way to the big town. He had his old Pappy riding in the back end of the spring wagon. Pappy had a game leg which had been creased by a falling tree when he was a young slave in Alabama so it was much more comfortable for him to sit on the hay in the wagon bed. Pompy had just tied the horses to the hitching rack when the first faint toots of the incoming train were heard. The horses picked up their ears as the roar of the oncoming train increased. As the screeching of the brakes reached a high crescendo Pappy stood up in the wagon just at the same time the terrified horses broke loose from the hitching rack and turning sharply at right angles literally took off for tall timber. Pappy was thrown with great force upon the hard packed cinders by the side of the depot platform, breaking his game leg between the knee and hip and running the split end of the raw bone into the cinders. The members of the GAR who were among the group recognized that Pappy was in deep shock and sent for Old Doc to come immediately. When he got there he had to push through the people to get to Pappy who was lying quietly on the ground. Old Doc was a forthright individual and the first thing he did was to put a brandy bottle to Pappy's lips. The first swallow of the fiery liquid opened old Pappy's eyes. Meanwhile Old Doc ordered the onlookers to shed their coats and put them under and over old Pappy until some quilts and jugs of hot water could be brought. Old Doc found Pappy's pulse was weak and thready, his mouth was open and his eyes glassy and staring. He knew that the injured man was in deep shock and would have to be taken out of that condition before the leg could be amputated. The leg was straightened and the bone put back in the flesh. Old Doc then reached for the three bed slats an old veteran had brought. He quickly put the slats around the leg and tied them in place with a piece of rope in order that Pappy could be moved to a bed in the home of one of the villagers. A two by four was laid across the high head and foot of the bed. Jugs of hot water were placed around him and he was covered with a blanket. A quilt was thrown over the two by four, thus making a crude shock tent. A lantern was hung to the two by four to give added warmth and hot coffee was poured down old Pappy's throat, along with two grain of opium mass. The second cup of coffee was laced with another slug of brandy and when that fiery liquid went down his throat Pappy opened his eyes and groaned. After two hours of hard labor and skillful attention and with the aid of the women who could help him Old Doc succeeded in getting Pappy out of his shock and decided that the time had come to cut off the leg. The

injured man was placed on the table and the temporary splint removed. Six men were detailed to hold Pappy down. Old Doc tied a rope tightly above the open fracture, slipped two hand holds made of clothesline into it so arranged that they were like handles on a basket When the assistants pulled back on the rope handles it not only stopped the hemorrhages but pulled the loose skin back so that there would be skin flaps left to cover the bare end of the bone. Meanwhile the women were boiling the saw, the knives and the other instruments in soda water, not with the idea of sterilizing them, for even Old Doc didn't know anything about germs or asceptic surgery, but they were boiled to cut off the axle grease with which they had been coated to prevent rust. The dirt was scrubbed from the injured leg with soap. There was no antiseptic with which to paint the skin. Old Doc took the long ivory handled amputation knife, which was about ten inches long, and cut entirely around the leg in one swift, circular movement. He then cut all of the muscles in a few circular motions, down to the bone. The surgeon asked for the saw and with a few swift strokes sawed the bone through and the leg fell to the floor, three minutes after the first knife cut. Pappy didn't feel much pain because he was too full of brandy and opium. The blacksmith was standing ready with a heated endgate rod to burn the ends of the big nerve of the leg so that Pappy would not have pain in the foot of his amputated leg to his dying day. Also careful instructions were given to young Pompy to bury the foot with the toes pointing to the setting sun, true East and West, so that in after life Pappy's spirit would not be going backwards in his last journey. A wrong way foot would condemn him to eternal confusion and perhaps to Hell.

Old Doc tied off the big vein and arteries with linen thread and cauterized the little veins with the hot endgate rod. Under Old Doc's instructions one of the men loosened the tourniquet to see if any new bleeders were brought to light. Because of the retraction of the skin there was enough of that organ left with which to make stump flaps. After these flaps had been sewn together Old Doc trimmed off the edges with a pair of scissors, leaving two triangular pieces of skin which were buried with the amputated leg. The bugbear of that day of surgery, gangrene, did not occur. The leg healed quickly leaving an excellent stump, well padded with muscle. Old Doc did not trim the end of the bone to make it round. He was correct. In modern days it has been found if this is done the leg has to be reamputated. Pappy made himself a peg leg out of good willow wood and skuffed around the village fifteen years more before he died of ald age. That was the only real serious operation that Old Doc ever did, for shortly after that the use of anaesthetics became general and surgical cases could be transferred to the hospitals in the big cities where more skillful surgeons than Old Doc took over.

When appendectomies began to be common operations Old Doc laid away his surgical instruments forever and devoted himself entirely to the practice of medicine. It was not until the twentieth century that he really began to use modern therapeutics and even then there were but few specific remedies. He was a master of psychosomatic medicine. When he entered a sick room his patient immediately felt better, unless he was afflicted with some desperate disease. Old Doc's kindly administration to his patients did them far more good than the medicines he gave them. That lesson should be taken to heart in modern days for eighty per cent of the methods used in the curing of the sick are based upon psychosomatic principles. Old Doc was a great physician in his day and had he lived a half century later would also have been counted among the great.

1103 Grand Avenue
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Club Foot Treatment

Results of Continuative Management

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I. *Introduction*

IN DECEMBER, 1953 the late Dr. H. Page Mauck requested that a Club Foot Clinic be organized in conjunction with a club foot program in order to (separate) remove these patients from the mass of general clinic patients. Under the enthusiastic supervision of the senior author this has been done and is now firmly established. Too much credit cannot be given to the personnel of the Crippled Children's Bureau and the Public Health Nursing Service of the State of Virginia for their role in this project. Largely through their efforts we have been able to initiate early treatment and continue treatment without interruption. The Crippled Children's Bureau has not only supported the hospitalization of these children but it has also established a foster home program which has enabled us to continue the immediate post-hospitalization treatment on a regular uninterrupted out-patient basis. When less frequent visits are required the children are discharged from their foster home and the Public Health Nurse in the field then visits the children in their homes to observe their general health, detect complications in plaster and insure their early and regular return to the clinic. In the meantime, every effort is made to have the patients return regularly to their local crippled children's clinics in order that the initial referring physician may participate in their care.

In the case of non-indigent patients a similar plan could be readily established between the referring physician, his office nurse and the physician to whom the patient is referred.

The present report is based on our experiences in the management of 48 children with 77 club feet since our club foot program was begun in December, 1953. Eighteen control patients, the "inherited" group, with 29 club feet already under treatment were enrolled and 30 new patients with 48 club feet have since been enrolled. (Table I).

From the Department of Orthopedic Surgery, Medical College of Virginia.

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Recent thorough discussions of the etiology of club feet are available elsewhere; however, a brief review of the etiology, pathology and diagnosis at this point will facilitate the subsequent discussion on treatment[1].

II. *Etiology*

By congenital club feet in this instance we refer specifically to the most common of all congenital deformities, talipes equino varus. Even though we have treated a number of children with congenital talipes calcaneovalgus their cases are not included because they have presented no great problem.

The exact etiology of congenital club feet is not known; however, in most cases a combination of several factors is probably at fault. These considerations are four, the first two involving the products of conception and its pre-natal surroundings. All four may, however, be modified by external influences such as radiation, viral disease, parental age, multiparity and starvation. The four considerations are: (1) hereditary, (2) faulty or arrested embryonic or fetal development, (3) embryonic and fetal-maternal neurovascular and metabolic disorders and (4) intra-uterine malposition.

Mall and Murphy's division of all congenital deformities into primary deformities (resulting from some inherent defect of or pre-fertilization influence upon the germ cells) and secondary deformities (the fetus or part is conceived without defect but is deformed because of postconception influences or lack of influences) has aptly been applied to the case of congenital club feet by Kite[3]. Hauser's observations on etiology of club foot perspicuously separate club feet into a larger first (Secondary) type with an excellent prognosis under ideal conditions and a smaller second (Primary) type accompanied by other congenital anomalies, familial occurrences and a poorer prognosis[2]. He emphasizes the importance of distinguishing between these two types not only from the viewpoint of prognosis but treatment as well. (Figs. 1 & 2).

In view of the similarity between some of the severely contracted congenital club feet and the ac-

TABLE I

CLUB FEET	*Control Before December 1953*	*After December 1953*	*Total*
NO. OF PATIENTS	18	30	48
NO. OF FEET	29	48	77
MALES	12	17	29
White	0	1	1
Colored	12	16	28
FEMALES	6	13	19
White	0	3	3
Colored	6	10	16
MALE FEET	19	29	48
White	0	1	1
Colored	19	28	47
FEMALE FEET	10	19	29
White	0	5	5
Colored	10	14	24
PERCENT BILATERAL			
Male	7	12	19 or (39.6%)
Female	4	7	11 or (22.9%)
RACE			
White	0	4	4 or (08.33%)
Colored	18	26	44 or (91.66%)
NO. OF SEVERE CASES	16 (88.88%)	16 (53.3%)	32 or (66.66%)
NO. OF MODERATELY SEVERE CASES	2 (11.12%)	7 (23.33%)	9 or (18.74%)
NO. OF MILD CASES	0	7 (23.33%)	7 or (14.60%)

quired Volkman's ischemic paralysis, a prolonged intrauterine neurovascular disturbance remains a very likely cause in some cases. Maternal metabolic, vascular, degenerative and infectious diseases as well as parental age and starvation, undoubtedly account for many congenital anomalies as well as club feet.

Uterine anomalies, tumors, multiparity and twin pregnancies reportedly are responsible for a large portion of club foot deformities. The severity of the deformity is proportionally greater when intrauterine malposition exists from the first through the last trimester of pregnancy.

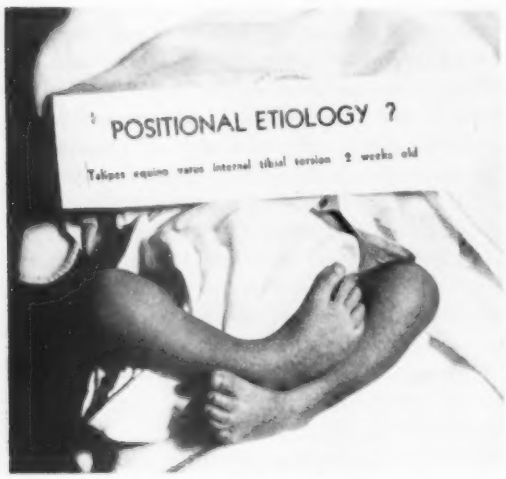


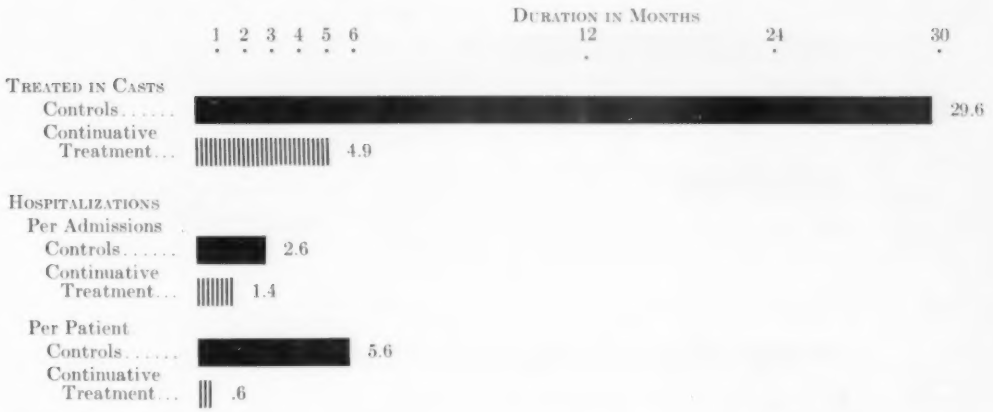
Fig. 1.—Secondary deformity.

Fig. 2.—Primary deformity.

TABLE II

COMPARATIVE RESULTS

CONTROLS—18 Cases Treated by Various Technicians in the Orthopaedic Department
CONTINUATIVE TREATMENT—30 Cases Followed in the Club Foot Clinic



III. *Pathology*—Static and Dynamic

Actually the entire pathological picture of club feet is a dynamic one and the terms static and dynamic are used here in the interest of clarity.

Static—Grossly there are three basic deformities composing a club foot: (1) the fore foot is toed in, (2) the hind foot is rolled under to the inner side and (3) the entire foot is plantar flexed into the equinus position.

Other accompanying deformities not consistently seen are (1) shortening of the great toe, or all of the entire first ray of the foot, (2) plantar flexion contracture, (3) internal or external tibial tortion and (4) occasionally the entire lower leg is atrophic and smaller and is described as a "stalk leg". It is felt that this latter component, when present, is a basic part of the congenital deformity either present from the beginning or that it develops as a result of the dynamic process of growth of an individual with a club foot rather than as a result of treatment with corrective plaster casts.

A. Bony—Coincident with these gross anatomical deformities is the abnormal relationship between the preosseous cartilagenous structures of the foot. The metatarsal row is held to the inner side in varus, and the navicular (scaphoid) is displaced to the inner side of the astragalus (talus) exposing the lateral articular surface of the head of the astragalus to palpation on the lateral border of the foot in line with the lateral metatarsals. In the normal foot the astragalar head is in line with the medial metatarsals. In addition, the astragalus is plantar flexed and correction of this presents a difficult problem inasmuch as very little manipulative control of the astragalus can be achieved because of the absence of musculotendinous attachments. The os calcis (calcaneus) is angulated medially beneath the astragalus and is in plantar flexion by virtue of the strong pull of the Achilles tendon. There is no evidence to support the idea that deformity of the bones of the middle and hind foot is a part of the pathological picture initially. When this is present it is usually due to their uncorrected abnormal relationship.

B. Soft tissue—The soft tissue deforming elements are: (1) the abnormally increased strength and size of the anterior tibial muscle and particularly of the posterior tibial muscle and their resulting increased mechanical advantage associated with the opposite situation of the peroneal muscles, (2) abnormal inserting attachments of the posterior tibial and Achilles tendons, (3) fibrotic contracture of the medial and posterior joint capsules, tendon sheaths and shortening of the neurovascular structures on the inner side of the foot and (4) anomalous supranumerary muscles. In all of our operative corrections we have found that the posterior tibial muscle had inserting attachments to the plantar fascia and over the medial tubercle of the astragalus and medial surface of the sustentaculum tali blending in with the deltoid ligament. In three we found a supranumerary muscle simulating the palmaris longus of the hand by the nature of its insertion into the

TABLE III

COMPARATIVE RESULTS

CONTROLS—18 Cases Treated by Various Technicians in the Orthopaedic Department
CONTINUATIVE TREATMENT—30 Cases Followed in the Club Foot Clinic

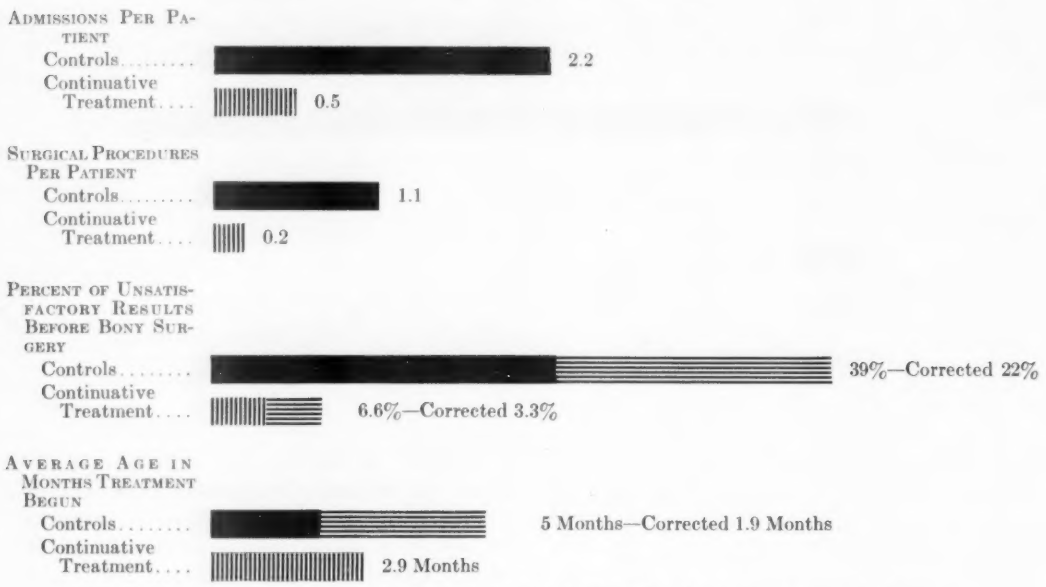


Table No. 3.—The unsatisfactory results in both the control and continuative treatment groups were corrected by radical surgical release. The average age in the control series was corrected by 1.9 months by excluding one case which was eighteen months old.

plantar fascia, and in another there was a deforming contracting band which had resulted from "blind" subcutaneous surgery performed previously. The flexor muscles of the toes rarely contribute primarily to the deformity. The Achilles tendon of the triceps surae is usually always shortened and is often attached more medially on the superior posterior surface of the tuberosity of the os calcis.

Dynamic—A severe club foot deformity will require application of corrective plaster casts at one or two week intervals over a period of many months and perhaps for a year or two. We have come to recognize and appreciate the nature of the repetitive trauma associated with this. The end result of fibrosis following traumatic inflammatory edema and immobilization of the venous and lymphatic return is well known. In order to allow this reaction to subside before again subjecting the foot to further correction we begin delaying the plaster changes to two to three week intervals as soon as the rapidity of the growth of the child will permit. Therefore, there is a race against time between the need to advance skillful correction as rapidly as possible and the subsequent scarring and contracture perpetuated by the repeated application of less progressive corrective plasters. When the latter process wins the race, as it is apt to do in those inherently resistant, so called "recurrent club feet", or when correction has either been inadequately accomplished or maintained, the problem of future management is indeed compounded. All individuals interested in this subject know well the value of beginning correction immediately after birth and the need to carry the correction to completion as rapidly as the dermatomusculotendinous and neurovascular components of the foot will permit, together with adequate maintenance in the corrected position.

IV. *Diagnosis and Prognosis*

In most cases the diagnosis of club foot can be made by inspection alone. However, more than just a label for the condition is required both by the parents as well as the physician. Determination of whether it is a primary or secondary congenital deformity should be made as soon as possible in view of the fairly good prognosis of the former and the poorer prognosis of the latter. Sometimes this differentiation cannot be made until the results of

early treatment are observed, but in most cases thorough examination by palpation immediately after birth will reveal to the experienced examiner the true nature of the deformity. The primary congenital club foot is more frequently associated with a history of familial occurrence and the presence of other anomalies. Differentiation between these types of club foot is made more difficult when treatment has been delayed, when the infant is past the newborn age, when treatment has been interrupted and when more than one person is participating in the application of corrective plasters or surgery has been performed. The early diagnosis of the degree of severity cannot be over-emphasized inasmuch as a more severe club foot is more difficult to correct and maintain and will require more aggressive treatment over a longer period of time. Quite often the complicating factor is the underestimation of the degree of severity. A mild club foot at birth untreated during the first three to four weeks of life will subsequently present itself as a severe club foot even though the actual contour of the deformity has not increased. More often than not, the contour of the deformity will increase also. In palpating a club foot, one should therefore determine the prominence of the head of the astragalus on the outer border of the foot and its general alignment with the metatarsal rays. The prominence of the tubercle of the scaphoid on the inner border of the foot together with the alignment of the fore foot with the hind foot should be noted. The degree of inner displacement and rolling under of the os calcis and particularly the relation of the tubercle of the os calcis to the posterior aspect of the ankle joint and fat pad of the heel, as well as the shortness of the Achilles tendon, should be observed. By manually applying appropriately directed corrective forces over these anatomical land marks, the degree of resistance to correction can be evaluated and it is the repetition of this evaluation between plaster changes that reveals the degree of severity as well as the corrective progress. A well corrected club foot should hardly be any less pliable than a normal foot and one should be able to carry the foot into the so called "over-corrected position" in which the dorsum of the foot nearly touches the shin just above the ankle with the heel lateral to the ankle. Observation of the depth of the "dimple" over the sinus tarsi on the outer border of the foot is an excellent index of evaluation. Unenthusiastic observation in these respects can mean mistaken prognosis. Failure to make regular progress may indicate the need for surgical intervention and uncorrected deformities in older children often require the aid of surgery initially. By and large correction of the fore foot can usually be accomplished without surgery. It is the correction of the inversion and equinus of the heel in a very small group that will require operative treatment.

V. *Treatment*

A. Basic Treatment with Serial Corrective Plaster Casts

The objective in club foot treatment is to overcome the grossly deformed non-functional foot as rapidly as possible and obtain a foot with satisfactory function. Because of the nature of the deformity and its correction to a satisfactory weight bearing propelling anatomical unit on which shoes must be worn, functional correction in this case is practically synonymous with cosmetic correction. Kite and many others have shown that gradual progressive correction produces the best results. In our clinic we have used only plaster casts in the initial attempt at correction. Others have used corrective bandages and various splints and braces, and during the initial stages of correction closed manipulation under anesthesia.

We begin treatment as soon as the general condition of the infant will permit, usually on the second or third day of life. Treatment begun at any later date has allowed the loss of precious time during which much could have been accomplished. Delayed beginning of treatment has been among the most serious obstacles to overcome. Now we are called to see children with club feet as soon as they are recognized in the newborn nursery. However, occasionally a baby with a very mild deformity is overlooked and is therefore not recognized until the return six weeks checkup. By this time a very pliable deformity has become a resistant one.

Initially we apply two-inch plaster bandages to the foot while manually unwinding the curled up foot. (Fig. 3). Depending upon the degree of severity and progress of treatment this may be repeated at one-week intervals, two or three times. Because of rapid growth during the first three months of life plasters should be changed at weekly or ten-day intervals. Also the rapidity of correction during the first month of treatment requires more frequent plaster changes and as correction nears completion progress is much slower and less frequent plaster changes are needed. On the other hand, the reaction from trauma to the soft tissues is continuously aggravated by changing the casts

Fig. 3.—Unwinding first plaster.

too often. As soon as the foot has been unwound plaster shoes are applied while an assistant exerts downward pressure on the flexed knee with the foot held against a flat surface beneath the sole. Corrective forces are exerted over the head of the talus laterally and the tubercle of the navicular, the shaft of the first metatarsal and the inner tubercle of the os calcis medially. The thumb of the opposite hand is used to correct the alignment of the head of the talus. Depending upon the stage of correction the application of the plaster shoe varies in

Fig. 4—Application of plaster shoe smug around heel.

that plaster is cut away beneath the lateral malleolus in the early stages and in the later stages when the foot is being dorsiflexed the plaster shoe is molded tightly behind the heel to hold the os calcis on the flat surface and in dorsiflexion. In addition the plaster shoe must be cut away from around the dorsum of the foot as well as the lateral inframalleolar area to prevent pressure damage to the skin. (Fig. 4, 5 & 6).

Fig. 5—Plaster shoe cut away with molding over head of astragalus laterally (thumb) and tubercle of scaphoid medially (index finger).

In all cases the plaster shoe is then built into a long-leg plaster cast extending to the groin with the knee flexed 90°. (Fig. 7). This is the method devised by Dr. J. Hiram Kite, based on the concept that a club foot deformity must be corrected in its distal segments first. Failure to obtain correction of the fore foot as manifested by the dimple over the sinus tarsi and alignment of the head of the astragalus with the medial metatarsals will not allow eversion of the os calcis and dorsiflexion of the foot. (Fig. 8). If these latter two corrections are forced before the astragalus is properly aligned the foot will be broken in the mid tarsal area and the so called "rocker bottom foot" will be produced. The rocker bottom foot does not serve well, functionally or cosmetically, and is prone to recur in the form

Fig. 6.—Continuation from pictures 4 and 5
(1) Molding plaster shoe behind heel
(2) Flat surface beneath foot.
(3) Assistant exerting downward pressure on knee.

Fig. 7.—Plaster shoe has been built into long leg plaster cast extending to the groin with the knee flexed 90 degrees.

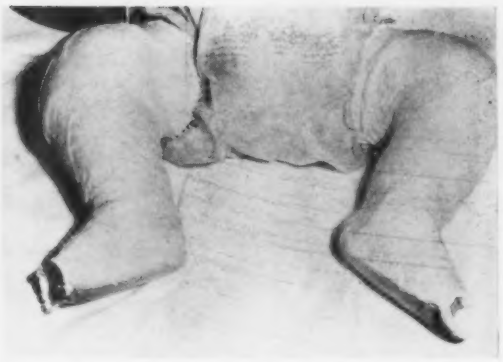


Fig. 8.—Correction of forefoot varus and inversion of hind foot before dorsiflexion is begun.

of a deformity which is a more difficult problem to handle than the original club foot, to say nothing of the difficulty in properly fitting shoes. In an orderly, well planned fashion the correction should proceed by first correcting the fore foot, obtaining the dimple over the sinus tarsi and aligning the head of the astragalus with the first metatarsal followed by eversion of the entire foot at the subastragalar joint prior to any attempt at dorsiflexing the foot and correction of the short heel cord. (Figs. 9, 10, & 11). There are no substitutes or short cuts to bypass this lengthy procedure extending

Fig. 9.—Combined overcorrected position after dorsiflexion with correction of equinus is completed.

over a period of one to eighteen months, depending upon the severity of the case. Once correction is obtained it should then be maintained to keep the foot supple, until the child is old enough and able to walk. During this maintenance period we employ the use of pre-walker club foot shoes with the Denis Browne[4] splint, manual stretching exercises

Fig. 10.—Dimple of correction over sinus tarsi.

Fig. 11.—Well corrected club feet should be flexible enough to permit the dorsum of the foot to touch lower anterior leg above ankle.

by the parent and walking boot plaster casts. Until the child is walking without evidence of "recurrence" of the deformity we see the patient at frequent intervals, every two to four weeks. Again this is a variable period of time depending upon the severity of the individual case. Post correction observation will therefore vary from a few months to one or two years. Initially club foot shoes for walking are used regardless of how mild the deformity may have been and regular shoes are used only when justified by a permanent pliably corrected foot. Even so, elevation of the outer borders of the soles and heels is occasionally advised. At each change of plaster corrective progress is rated and it follows that this notation is most accurate when the same observer sees the same patient throughout the course of treatment. Only by this continuative management plan can one accurately and early determine when no further progress is being made toward the so called, "over-corrected position" and therefore recognize the need for surgical intervention prior to repeated trauma to the foot and consequently the loss of time resulting in more scarring in the foot and delayed walking. Depending upon the state of correction at which time unconquerable resistance is met, various surgical procedures are employed. Our experiences with early subcutaneous operative procedures have led us to discontinue this practice in that the results have been unsatisfactory and also because we perhaps have not mastered this technique in what appears to be blind surgery at a time when one is unable to accurately determine exactly where the correction should be applied. We are opposed to any subcutaneous surgery. Also we have come to believe that small and repeated open surgical procedures at various intervals during the management of a severe resistant case do not produce as good a result as does one well planned, accurately timed operation designed to accomplish all that could not be accomplished with the use of serial corrective plaster casts. Only the indicated surgery should be done. If all but lengthening of the heel cord has been corrected in plaster, then a heel cord lengthening tenotomy should be done. But before this is done one should accurately determine that this is indeed the only uncorrected element of the foot. The presence of one uncorrected component of the club foot should always stimulate the search for other uncorrected elements and an operation designed to overcome one resistant part does not facilitate the subsequent correction of the other uncorrected parts. Enthusiastic, aggressive, methodical correction in plaster therefore cannot be over-emphasized. However, failure to make further corrective progress should be noted as early as possible in order to avoid breaking the foot. This need for surgical intervention cannot be recognized properly until plaster casts have been applied consistently for several months, namely six to nine months or longer.

If at this stage the need for a heel cord lengthening and posterior capsulotomy is clearly indicated there should be no delay in carrying this out and continuation of correction in plaster should be resumed inasmuch as this operative intervention is only an aid in the treatment and not a curative procedure. Early discontinuation of progressive correction both post operatively and in the non-surgical case is a constant cause of trouble. Temporizing with a foot that is prone to "recur" both during the post corrective maintenance observation period,

and, in the surgical case, in the post operative continuation of correction is a block over which all of us have stumbled. If any doubt exists as to the presence of "recurrence" resumption of serial corrective or maintenance plasters is indicated.

B. *Surgical Treatment*

We have successfully employed in several of our resistant cases the operation recently advocated by Dr. Fred Thompson[5]. This is based on our belief that unsurmountable resistance, when present, extends throughout the entire foot and not just one element of the club foot and the resistance is due to a combination of factors consisting of (1) increased strength and size of the posterior tibial muscle and its covering accompanied by abnormal inserting attachments of this structure, (2) scarred contracted joint capsules of the medial joints of the foot and (3) a contracted shortened posterior capsule and Achilles tendon. In every case in which we have released these structures we have found this to be true in addition to the finding that the scaphoid was still medially displaced in front of the head of the astragalus. The operation calls for exploration of the medial side of the foot and surgical release of all obstructing structures. In most of the cases we have operated we have divided the posterior tibial tendon at its insertion and freed it from its retinaculum, excised the medial astragalonavicular, subastragalar and posterior crural capsules, lengthened the Achilles tendon and when indicated lengthened the middle component or all of the deltoid ligament. Post operatively the foot is held in the corrected position for four to eight weeks or until pliable and since all of these patients have been old enough to walk, ambulation was begun immediately upon removal of the plaster. Walking plaster casts may be used if necessary. The results so far have been uniformly gratifying. Correction of the foot at operation should be done cautiously since the amount of correction is limited by the tightness of the neurovascular bundle. Visual observation and palpation of the pulsation of the posterior tibial artery prior to closure of the wound will indicate the point at which correction of the foot impairs the circulation. (Fig. 12 & 13).

Fig. 12.—Bilateral Club feet with "stalklegs"
Has had bilateral "blind" subcutaneous surgery during early correction and a heel cord lengthening and posterior capsulotomy on a second occasion. At a third operation a radical medial release was done on the right foot. The left foot shows one of the indications for the radical medial release.

Fig. 13.—(1) Untreated club foot of a sixty year old patient.
(2) Note that weight is borne on the head of the plantar flexed astragalus.
(3) Special made shoes are necessary.

VI. *Complications*

The common complications we have encountered before treatment was begun are prematurity, other anomalies, feeding problems and starvation, other illnesses, skin diseases, tumors, etc., and delay in reporting for treatment. After treatment has been begun complications to watch for are pressure sores and inadequate circulation, dermatitis, inadequate correction, failure to resume casting at the earliest sign of recurrence, failure to maintain adequate correction until the patient is walking, other medical or surgical illnesses, and failure to recognize the need for surgical intervention resulting in a broken "rocker bottom foot", the corection of which cannot be undertaken until five to seven years later when

bony reconstruction can be done. Surgical complications result from inadequate blind subcutaneous surgical releases, multiple minor open surgical procedures performed too early before an adequate trial in corrective plasters, circulatory inadequacy in plaster post operatively, and failure to follow through with treatment in plaster post operatively.

VII. *Summary*

Continuative club foot treatment has been discussed in detail from the viewpoint of etiology, pathology, diagnosis, prognosis, treatment and complications. Differentiation between primary and secondary deformities has been emphasized as well as the continuative treatment in plaster beginning on the second or third day of life. The indications for surgical intervention have been described and are few. Complications before and after treatment has been begun have been listed. Transfer of the anterior tibial tendon laterally and the posterior tibial tendon anteriorly through the interosseous membrane or laterally to the peroneal tendons has not been employed. Comparatively results of multiple and singular management are shown.

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How To Fight Malpractice Threats.

Do you know what to do when a patient claims malpractice?

Some doctors don't. They either talk too much, or they talk too little.

While "there's no foolproof system for avoiding a malpractice action," concedes J. Joseph Herbert, chief legal counsel for the Michigan State Medical Society, in an article appearing in the May issue of MEDICAL ECONOMICS, ". . . there are several steps the physician can take to protect himself from the moment any patient indicates dissatisfaction."

1. "If your patient so much as hints he thinks something's wrong, immediately raise your guard and treat him with polite but noncommittal formality."

"Remember that malpractice is defined as a breach of duty on the physician's part. A bad result is not proof in itself of a breach of duty. Above all, don't gratuitously assume the blame for a bad result," the lawyer warns. "Speak in carefully chosen phrases."

2. "At the first hint of a malpractice claim, notify your insurance company. Don't wait until the word 'lawsuit' is mentioned. Phone your carrier as soon as you think the patient might ultimately take action. The company's representatives will be glad to advise you what to do."

3. "If suit seems possible, immediately review your office records. Then go to the hospital and examine all relevant records there."

Full preparation has saved cases for many a doctor, Herbert points out. But, he quickly adds, "if any lawyer other than your own asks to see your records, refuse."

4. "Always be completely frank with your own lawyer and with your insurance company's lawyers. It's their job to help you best only if they know all the facts—even the ones you may think unimportant."

5. "Finally, if you're sued—or suspect a suit is brewing—seek out some of your own colleagues. Get their advice and help."

"Don't be embarrassed at telling them the whole story. . . . They may be able to help you decide whether to settle or to fight. And they may be able to testify for you, if that should prove necessary."

Joint Manipulation in General Practice

JOHN McM. MENNELL, M.B., B.CL.D.M.R.E.
Washington, D. C.

MORE AND MORE our profession is coming to realize that joint manipulation can relieve joint pain which may be either recent or may have persisted for years in spite of excellent conservative conventional care. But it remains a mystery to most physicians how this relief by manipulation is brought about. Such cures are still attributed by some to "psychotherapy" for a basically psychoneurotic condition. This tends to produce a deterioration in patient-doctor relations.

Perhaps the misunderstanding on this subject arises because manipulation is a type of therapy whose basic tenets are not stressed in medical schools, whose principal practitioners are not medically trained, and whose legitimate indications and rational end results are unknown to the bulk of the medical profession. Loose talk of "little bones" being put back where we know that no little bones exist and of hypothetical lesions which have never been demonstrated to anyone's satisfaction has done little more than to increase professional bias towards it.

It is my main purpose, therefore, to present to you the concept of joint function, the loss of which is pain producing and the restoration of which is pain relieving. The movements to be described are easily performed at any normal synovial joint and their range can be demonstrated radiologically; they are painless and specific and therefore physiologically normal.

Not only will a loss of one of these movements impair the normal voluntary movement at a joint, it will also per se produce pain in that joint or at any distant place from the joint which shares a common dermatome with it.

Voluntary joint function is entirely dependent on the integrity of these secondary movements which are not under the control of voluntary muscles and which I call "joint play".

The existence of joint play is best demonstrated by considering one of the simplest synovial joints—the second metacarpo-phalangeal joint. This joint is most easily handled and examined.

The movements which make up the range of joint play at this joint are: 1. Long-axis extension. In this movement the base of the phalanx is drawn away from the head of the metacarpal bone which is stabilized. This opens up the joint space in the long axis of the finger. 2. The anterio-posterior glide. The joint space is opened up anteriorly or posteriorly, neither movement bearing any relationship to flexion or extension. 3. Side-bending. This movement opens up the joint space on either side and bears no relationship to abduction or adduction. 4. Rotation. This movement is that of simple rotation of the base of the phalanx on the immobile head of the metacarpal bone, and bears no relationship to circumduction.

These movements have been more fully and graphically described in the literature. In performing them neither the ligaments of the joint nor the muscles in relation to the joint should be stretched; only the slack in them is taken up.

There is a similar range of joint play at all the synovial joint in the limbs and is easily demonstrated. At each joint the range is specific to the joint but common to the same joint in all normal people. Space does not permit such a demonstration. However, if this fact can be accepted then it is only logical to broaden the expression "all synovial joints in the limbs" to "any synovial joint anywhere in the body". There are one hundred and twenty of these joints in the vertebral column. It is illogical to deny that something will occur in spinal joints just because they cannot easily be handled or visualized.

Manipulation, as we understand it, is a therapeutic maneuver designed to restore a lost movement in the range of joint play and is in no way concerned with the restoration of movement in the voluntary range. The object of manipulation is to relieve pain from joint dysfunction; incidentally the voluntary range of movement may be restored but this is because there is no longer involuntary interference to prevent the articular surfaces from moving freely on one another and therefore the muscles are free to move them.

The pre-requisite to successful manipulative therapy is, of course, correct diagnosis and one's diagnostic examination should be directed to the detection of the loss of a movement of joint play. Further, one must recognize the bizarre pattern of referred

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pain which may occur from joint dysfunction. This often bears little relationship to the accepted patterns of segmental nerve supply.

An equally important facet in diagnosis is found in history taking. The history of the onset of a patient's symptom is important. Joint dysfunction most often results from an unguarded or uncontrolled movement and its onset will be sudden. The patient's localization of the symptom will often direct the examiner's attention to a joint and the constancy of the localization will be important even if there is referred pain as well. The symptom of pain from simple joint dysfunction will be relieved by rest and aggravated by activity. There will be no evidence in the history of other disease which could manifest itself in this sequence of events.

On physical examination, it is characteristic of joint dysfunction that there is limited movement in the range of joint play, with or without gross impairment of the voluntary range of movement. Pain occurs at the limit of movement and disappears when the examining stress is removed. At the limit of movement the pain produced should be a reproduction of the pain of which the patient complains.

All examining movements for joint dysfunction should be passive for, by definition, search is being made for the loss of movements which cannot be actively performed and also to differentiate signs arising from joint and muscle pathology. Confusion of symptoms and signs may arise when both muscle and joint dysfunction are present concurrently as so often happens in recent traumatic cases and invariably occurs in long-standing cases because secondary changes occur in muscles which have been in protective spasm for any length of time.

Of course bone and joint disease as a cause of joint dysfunction must be carefully ruled out before advising or performing joint manipulation. As a therapeutic measure following manipulation, treatment of any secondary muscle involvement must be undertaken so that normal joint movement may be maintained; otherwise the joint dysfunction will readily recur.

In performing joint manipulation attention to the detail of technique is vital to the success and safety of therapy. Only one articular surface should be moved on another at one time. Only one movement should be performed at one time. No forceful movement, overmovement or abnormal movement should ever be used.

Manipulative technique must be learned on the normal before any attempt is made to move a joint in which there is abnormal function. Too often failure of manipulation is blamed on the therapy when the blame lies with the manipulator. Manipulation should not be a treatment of trial and error. To manipulate a joint where there is a history of increased stiffness after rest often courts disaster. Fractional manipulation is often indicated especially when intra-articular adhesions are thought to be present; *i. e.*, repeated manipulations, each one restoring a part of a lost movement to be sure of avoiding joint damage and reaction which may lose movement rather than regain it.

If, in general practice, you can satisfy yourselves that a patient's symptoms are arising from simple joint dysfunction then I think you are justified in asking a well-trained manipulator to treat your patient for that specific complaint just as you would ask a physical therapist to give physical therapy for you or a radiographer to carry out an x-ray examination for you. But you should make the diagnosis yourself. The day should not be too far distant when simple manipulations could be carried out in the general practioner's office. But this cannot be until the teaching of this branch of orthopaedics is included in the curriculum of medical schools and until postgraduate courses are available to you.

I would like to close by quoting from the writings of one of the greatest teachers of the past. Some ten years or so before the Declaration of Independence was written, Mr. Percival Pott said: "If what I have to urge is not capable of being verified and confirmed by experience, it must sink into nothing; but if, upon trial, it shall be found by the majority (as it has been by me and others) to be not only true and practicable, but conducive to the ease and benefit of the afflicted, it ought to have as much weight, though delivered by a living writer, as if it had proceeded from the remotest antiquity: its use, not its date, should give it value. If practitioners, since the time of Albucasis, had been contented with his doctrine, and never had ventured to think for themselves, surgery had not been what it now is, and its great merit would still have consisted in the multiplicity of its hot irons."

Mr. Pott was talking of surgery. In considering manipulative therapy, his words could well have been written today. But this exhortation must be temperered by the admonition: learn well what to do, how and when to do it before personally attempting therapeutic manipulation, but do not deprive your patients of relief from pain because of prejudice.

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Carcinoma of the Prostate With Metastases to the Penis

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THE PENIS is rarely involved by a metastatic tumor. The most recent report listed 35 examples to which the authors added 4 of their own[4]. Two of their cases were metastases from the prostate. Discrepancies as to the exact number of prostatic carcinoma with penile metastases are found amongst various articles reviewed due apparently to failure to include instances in the foreign literature. Hellwig and Waller[5] thought their case was the tenth. The cases of Wilson et al[11], and Espinosa et al[3] raises this figure to 12. The above-mentioned two cases of Hamm and Weinberg[4] increases the total to 14. The following case report would therefore appear to be the fifteenth example of this rare phenomenon.*

Case Report

E. G., a 60-year-old, white man was admitted April 27, 1954 with complaints of a "knot in the penis", for the past three weeks. The past history revealed increasing narrowing of the urinary stream, dribbling and nocturia. Physical examination showed a hazel-nut-sized, firm, non-tender lesion in the mid-shaft of the penis, slightly to the left of the midline. On rectal examination there was a hard, nodular prostate suggestive of carcinoma. The positive laboratory findings consisted of a slightly elevated acid phosphatase. The penile lesion was biopsied on the 3rd hospital day (see pathology report below), and the patient was discharged shortly thereafter to be followed as an out-patient. At the time that he left the hospital he was given 24 mg. of TACE a day.

The patient was next seen in the office on June 4, 1954. The prostate gland was not quite so hard, and there was no evidence of induration of the penis. He was seen at monthly intervals until Sept. 21, 1955. During this time several different estrogen preparations were used, namely, premarin, TACE and stilbesterol. Despite this therapy, the prostate continued to increase in size, and seemed to extend upward to involve the seminal vesicles. Urinary frequency gradually became more pronounced, and from time to time hematuria was noted. At no time was there any complaint of priapism.

On November 26, 1955, the patient re-entered the hospital where a transurethral resection, and orchiectomy was done. Two months following discharge from the hospital the patient's predominant complaint has been mild urinary bleeding.

Pathologic Findings

Biopsy of penis. Gross (S-54 3244). The specimen consisted of an ovoid piece of skin and underlying tissue, 2.5 by 1.3 by 1 cm. In the center was a previously incised, poorly-outlined, granular nodule, approximately 1.5 cm. in diameter, and occupying the depth.

Microscopic - Section showed multiple vascular spaces characteristic of the corpus cavernosa of the penis. Most of these sinuses were plugged with tumor masses composed of compactly-arranged, large, polygonal cells with bizarre, vesicular nuclei. (Fig. 1). Mitoses were frequent and averaged 1 per high power field. The tumor showed no differentiating features and glandular structures were not observed. (Fig. 2 and 3). Many of the tumor masses were mixed with the blood of the cavernous spaces. In general the tumor was confined to the blood sinuses, and the over-all pattern suggested that the penis was involved by diffuse embolization of the sinuses of the corpus cavernosa.

Tissue removed from transurethral resection. Gross. (S-55 8951). The specimen consisted of 6 irregular cylindrical fragments of tissue submitted in formalin. The largest was 3 by 0.5 cm.

Microscopic - Sections showed a highly anaplastic epithelial tumor distorted by the method of removal. Portions of prostatic tissue were occasionally seen infiltrated and partially replaced by the tumor. In better preserved areas solid sheets and masses of tumor cells were present with poor attempts at glandular formation. (Fig. 4). The cells varied mark-

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*McGarran's paper [7] is unavailable for study, as it was not found in several large libraries checked. Inclusion of this author's case would therefore make the present case the sixteenth to be reported.

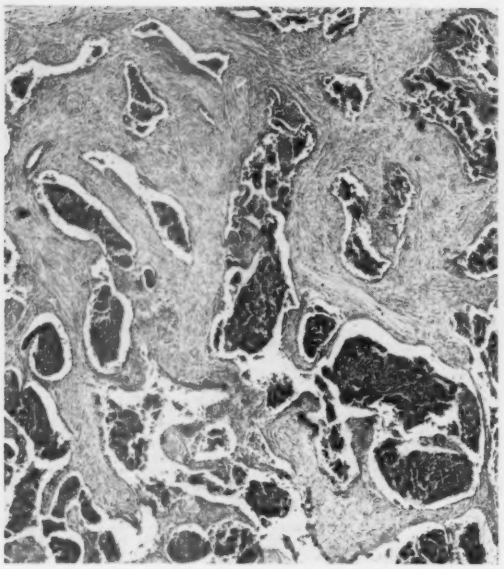

Fig. 1. Vascular spaces of the corpus cavernosa plugged with tumor cells. x 40.

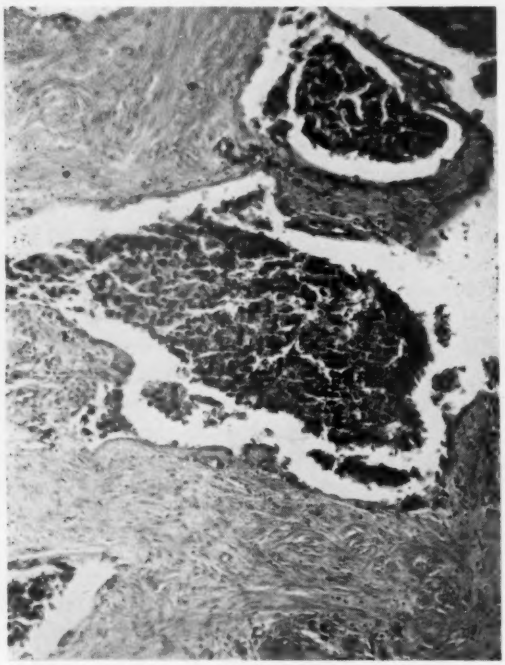

Fig. 2. Medium power view to show two of the blood sinuses filled with tumor cells. x 150.

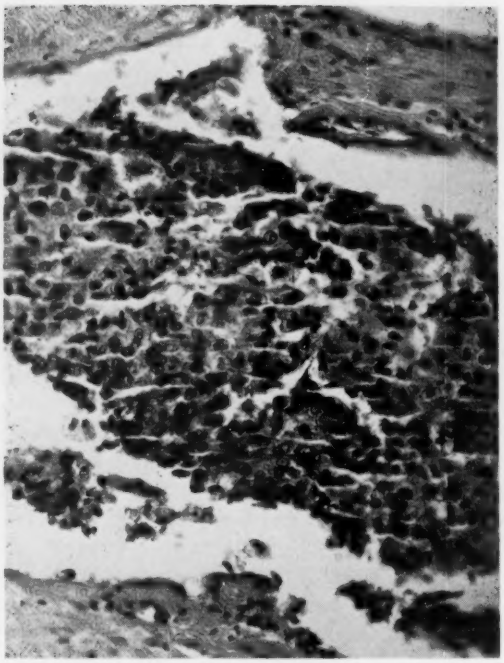

Fig. 3. High power view of Fig. 2 to show cellular details of neoplasm. x 400.

Fig. 4. Photomicrograph of primary prostatic neoplasm removed by transurethral resection. x 300.

edly in size and shape, and were often extremely large with bizarre nuclei and prominent nucleoli. The cytoplasm was vacuolated or finely granular. Mitoses were frequent. Many venous channels were plugged with tumor cells. (Fig. 5). A comparison of this material with the lesion from the penis showed that the neoplasms were identical.

Diagnosis: Carcinoma of prostate with metastasis to the penis.

Comment

The pathogenesis of metastatic lesions of the penis has been variously explained on the basis of

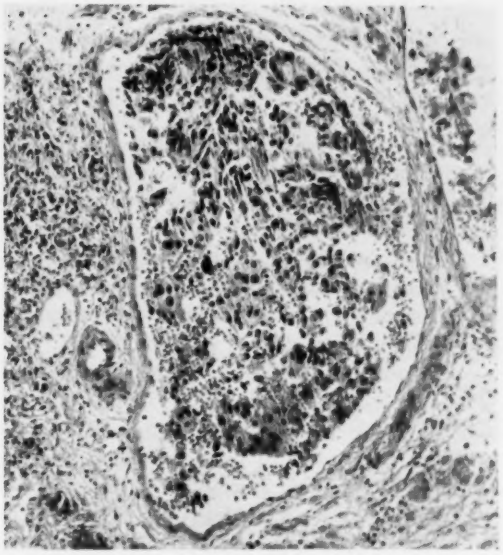

Fig. 5. Venous channel within prostate plugged with tumor cells. x 300.

retrograde venous spread, retrograde lymphatic permeation and direct extension. In the present case there was extensive involvement of the cavernous spaces of the penis, in addition to the presence of tumor thrombi within venous channels of the prostate gland. It therefore seems likely that the mode of spread from the prostate was via the venous system through the deep dorsal vein of the penis.

The absence of priapism is surprising since the blocking of the cavernous spaces of the corpora cavernosa by tumor is generally given as the reason for the development of priapism. From a study of the previously reported cases of metastatic neoplasms of the penis, it would seem that patients are just as apt not to have priapism as well as to complain of it.

Summary

A case of carcinoma of the prostate with metastasis to the penis is described.

The mode of spread was thought to be via the prostatic veins, and through the deep dorsal vein of the penis.

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Doctors Are Churchgoers.

How religious is the U.S. doctor?

Very religious, reports Medical Economics in article appearing in its May issue. From a recent survey of the country's physicians, the business magazine learned that "about two-thirds of the respondents say they attended church services at least once in the month preceding the survey. Of these, more than half went four times or more."

What churches do the doctors attend? "Nearly 60 per cent of the surveyed physicians consider themselves Protestant, in one of some twenty different denominations (led by Presbyterians, Methodists, and Episcopalians). Seventeen per cent are Catholics, 15 per cent Jewish."

Rupture of the Esophagus

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RUPTURE of the esophagus was a clinical medical entity even before the development of the esophagoscope during the latter decades of the 19th century. After this development and use of the scope, ruptures became more frequent.

The most common causes of this condition are:

1. Passage of esophagoscope.
2. Instrumental dilatation of strictures.
3. Foreign bodies.
4. Rupture of esophageal ulcers.
5. Spontaneous rupture of esophagus from persistent vomiting—often seen in alcoholics.
6. Penetrating wounds or external violence.
7. Perforation by malignant growths.

Fig. 1. Shows tracheotomy in place and a large trapped pocket of air between the cervical spine and esophagus.

There are three common sites of rupture in areas where the esophagus is narrow. These are at (1) the cricophyaryngeal area, (2) the site at the level of the aortic arch and the left main bronchus, and (3) the site immediately above the point of narrowing where the esophagus passes through the diaphragm. Most observers report at least 50% of perforation at the first site. This is the cricopharyngeal area or the cervical esophagus. Cervical perforations are less dangerous than those occurring in the middle or lower one-third of the esophagus. The posterior wall is more often involved than the anterior wall leading to air in the fascial plains of the neck.

The advent of sulfonamide and antibiotic therapy has altered our concept as well as our results in the treatment of esophageal perforation. Prior to their use, this condition, in the vast majority of instances, was followed by the fulminating course of an acute mediastinitis and death. Because the effective antibiotic agents are more commonly administered at the slightest provocation, the treatment of patients who are suspected of having esophageal rupture is often begun early, and fatal mediastinitis either controlled or aborted. Nevertheless, it is important to establish the diagnosis definitely and to realize that antibiotic treatment alone is insufficient to prevent death.

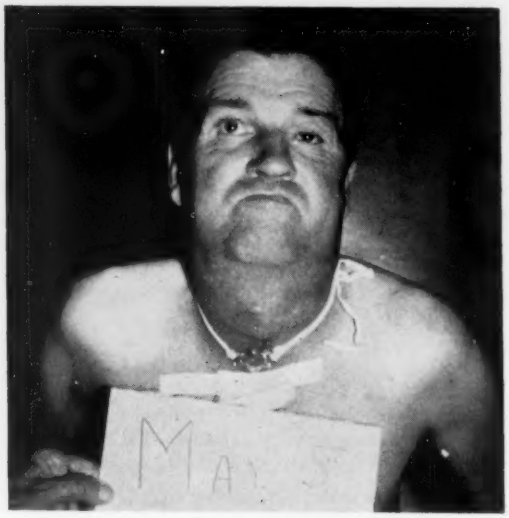

Fig. 2. Patient in the early part of his illness showing marked emphysema.

The symptoms and signs resulting from perforation of the esophagus vary considerably with the position and nature of the injury. Fever, pain, and

swelling form a symptom complex of positive diagnostic value. Pain is the first symptom noted and may increase so rapidly in severity that deglutition becomes impossible. It is accompanied by marked tenderness over the site of perforation and swelling which may be caused by emphysema, cellulitis or abscess formation. Dyspnea is often observed as the result of pressure or swelling in the region of the larynx. Fever is an early and important index of the severity of the infection. Increasing general malaise, chills and delirium may occur with the formation of purulent material.

Diagnosis is made from a careful history, the presence of the above symptoms, and x-ray findings. X-ray is an invaluable aid in diagnosis as well as assistance in following the progress of infection in the peri-esophageal tissues.

General acceptance of the principle of early surgical drainage of the site of infection, which is the unfailing sequel of every perforation of the esophagus, is now an accomplished fact in most cases. The nature and extent of the lesions secondary to perforation have great influence on the majority rate. This rate varied from 15% to 65% depending on whether the infection involved just the mediastinum or whether a complicating empyema was present.

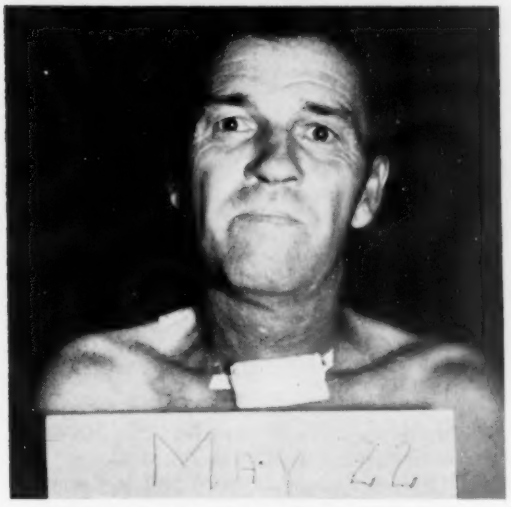

Fig. 3. Patient at time of his discharge from the hospital.

A similar case to the one to be reported in this paper could not be found in the literature. In this case conservative treatment was considered the one of choice and proved to be wise therapy. It is not advised for the average case of esophageal rupture.

L. S., a 52 year old, white male was first seen in my office on April 29, 1954. He gave the following history. On Saturday, April 24th, he swallowed a piece of pork bone which lodged in his throat. He finally vomited it up after violent coughing and straining. Following this episode he had painful, difficult deglutition, and was only able to take liquids. The following day he saw his family doctor who examined him but felt that no medication was indicated.

On April 28th, three days after the initial episode, he developed chills with fever, swelling of the neck, and with much effort and pain could take only a moderate amount of liquids. The next day he consulted Dr. Philip Cox of Fredericksburg. At that time he was acutely ill, having fever with marked cellulitis of his neck and edema of the laryngeal region. He was given 600,000 units of penicillin and referred to me.

On April 29th, L. S. was observed as an acutely ill patient; temperature 104°, cellulitis of the neck, edema of the epiglottis with difficult swallowing, and dyspnea with stridor. He was referred to Johnston-Willis Hospital. His laboratory work showed Hgb. 82%, Wbc. 21,400, Pm. 84, L. 7, Mo. 9. X-rays taken on the same day showed (1) edema of the soft tissues, (2) a trapped pocket of air in front of the cervical spine and behind the esophagus in the prevertebral fascial space. The rest of the esophagus was negative, barium being used as a contrast medium. There was no foreign body noted. Chest films were negative. Conclusions: Apparent perforation of the esophagus by a previously ingested foreign body which was not found to be present, swelling and edema of the tissues and a pocket of trapped air between the esophagus and spine. The patient was started on a combiotic, aureomycin, and intravenous fluids.

On April 30th, the patient's dyspnea became worse with evidence of laryngeal obstruction, and a tracheotomy became necessary.

On Monday, May 3rd, the patient developed air in the left side of the face. A puncture wound under the left jaw released an odorless air which quickly reformed.

The clinical picture remained the same except for the disappearance of chills and a reduction of fever. His temperature leveled off at 100° and remained there.

On May 6th x-rays showed subcutaneous emphysema involving thorax, hypopharynx, carotid sheaths and mediastinum.

On May 7th the hypopharynx was swollen like a balloon, air being in the bucco-pharyngeal fascial space. It was released by a stab wound in the

hypopharynx. The air reformed and was repeatedly released.

The patient was fed by intravenous medication until May 9th when it was felt safe to pass a feeding tube. The tube was passed without difficulty, and intravenous fluid was discontinued. Aureomycin and combiotic were the antibiotics continued.

X-rays taken on May 14th gave the following conclusions: (1) Subcutaneous emphysema, (2) emphysema and fluid in the superior mediastinum, and (3) emphysema in the carotid sheaths. No broncho-esophageal fistula was noted when iodized oil was used as a contrast media. Oil passed into the lungs, due to the esophageal obstruction, by overflowing into the trachea.

After fluoroscoping the patient in an upright position on the following day, Dr. William Johns resected the seventh rib posteriorly and opened the superior mediastinum releasing fluid and air. The emphysema in the carotid sheaths, hypopharynx, and neck subsided immediately. The next day the patient was able to take fluids by mouth and could breathe without a tube; therefore both feeding and tracheotomy tubes were removed.

The patient did well post-operatively, but on dressing the chest wound there was found to be present a bronchial fistula, which healed spontaneously after removal of the drain.

The patient was discharged on the fortieth day, the ninth day following his chest operation. He lost forty pounds of weight during this period.

One month later he returned to regular work and has been well ever since.

This paper discusses the problem of esophageal rupture and presents an unusual case of this condition which responded well to conservative treatment.

I should like to express my apreciation to the men who saw this patient with me and helped in his recovery, Dr. E. T. Gatewood, and Dr. William Johns.

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Paget's Disease of the Nipple

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PAGET'S DISEASE is a rare unilateral eczematoid affection which involves the nipple region in women and which ultimately terminates in malignancy, first described by Paget of London in 1874.

Diagnosis: Is made by biopsy and demonstration of Paget cells.

Treatment: Radical mastectomy with axillary dissection.

Symptoms: The malady commences insidiously as a sharply circumscribed eczematous inflammation of the nipple and immediate contiguous areola. There may be a slight scaling at first and later as a result of the presence of a sticky, viscid fluid which extrudes, there is more or less crusting. Itching is an early symptom and pain is frequently present. The lesion does not respond to anti-eczematous treatment and never heals spontaneously. The affected plaque is sharply defined and densely infiltrated. Eventually the process gradually extends peripherally into an area many centimeters in diameter, or the entire breast is involved. The nipple becomes retracted and fissuring and erosion occur. Sooner or later in from one to three years a superficial ulcerating or a deep nodular carcinoma develops and ultimately the entire breast may be affected. As a result of lymph node involvement the contiguous axillary nodes also may be invaded. The connection between the eczematous disorder and the carcinomatous condition which succeeeds it has not been definitely settled. Some people feel that it is two lesions and that the nipple lesion is the result of the underlying carcinoma which is always found. Paget cells are large, sharply defined, unenucleated cells with deeply staining nuclei and a retractive, faintly staining protoplasm. Their presence is pathognomonic of the malady. Unless there are great contraindications the treatment of choice is a radical mastectomy with axillary node dissection.

Prognosis: In early cases by doing a radical breast amputation and axillary dissection the prognosis is good. In extensive and advanced cases the prognosis is the same as that of carcinoma of the breast.

CASE REPORT:

Chief Complaint: "Scabbing of the nipple for about a year".

Family History: No known cancer.

Past History: Three children alive and well—nursed all three. No breast abscess or nipple lesions.

Present Illness: About one year ago first noticed the left nipple "scabbing"—paid little attention to this, but used various ointments found around the house. There was no itching. Occasionally the clothes would stick to the nipple. She heard over the radio "sores that do not heal may be cancer". A year after the onset she consulted her family physician Dr. J. Glenn Cox of Hillsville, Virginia. Dr. Cox referred her immediately to Dr. William Kaufman, a dermatologist in Roanoke, Virginia, who on her first visit biopsied the lesion. Paget cells were found in the biopsy by Dr. Gale. Dr. Kaufman recommended a radical mastectomy.

Physical Examination: Well developed and well nourished, 50 year old white female in no pain or distress, although she was aware of her diagnosis and why she was referred to the hospital. "Don't seem like nothing much wrong to me but the doctors say cancer so I came to get the breast taken off." The only positive finding on physical examination was the left nipple.

BREAST: No masses or tenderness could be found in either breast. The left nipple showed a small V-shaped fissure that was difficult to see. Fig. 1. (Two weeks had lapsed since the biopsy was done.) There was no retraction or other abnormalities. The impressive part of this lesion was the lack of positive findings and the normal appearance of this nipple. No axillary nodes were palpable.

Course in Hospital: The patient was prepared for a radical mastectomy on the basis of Dr. Kaufman's biopsy which showed Paget's cells.

Operation: A radical mastectomy was done with an axillary node dissection. The pathology report was as follows: (1-14-56)

Gross Description: A left breast with pectoral muscles and axillary contents attached. The nipple is slightly crusted and a small fissure is present on the lateral side. Section through nipple reveals no gross pathology. Multiple sections of breast reveal normal appearing breast tissue. Dissection

of axilla reveals seventeen nodes from 0.4 to 2 cm. long. All are grossly negative.

Microscopic section of the nipple reveals that the epithelium is heavily invaded by large rounded cells with rather clear cytoplasm and large hyperchromatic pleomorphic nuclei. The epithelium of three of the main ducts of the nipple is made up of similar cells.

Diagnosis: Paget's disease of nipple with underlying duct carcinoma. No axillary metastases found.

T. M. THORNHILL, M.D.

Discharge Note: The patient had an uneventful recovery following the radical mastectomy and will be followed in the tumor clinic every six months. We feel that her prognosis is excellent.

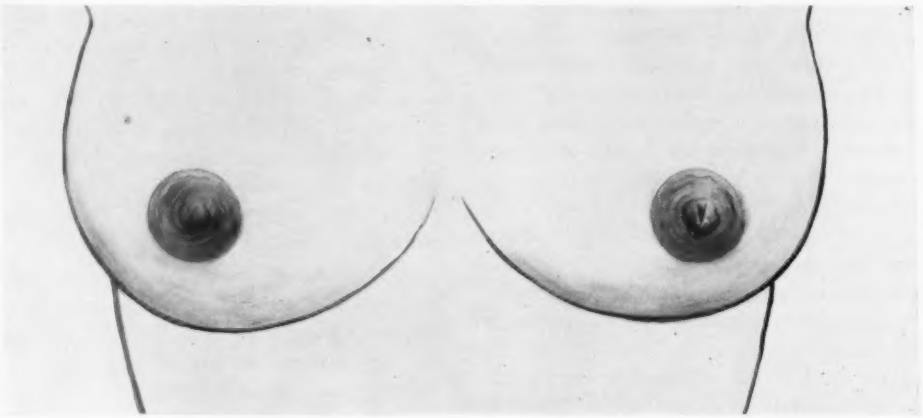

Fig. 1

CONCLUSION

Any unilateral eczematous lesion of the nipple should only be treated for a period of two to three weeks with ointments and if it does not completely heal a biopsy should be done. If Paget's cells are demonstrated in the biopsy the treatment of choice is a radical mastectomy with axillary dissection. The prognosis is good in these cases that are diagnosed early. Paget's disease of the nipple should always be suspected and ruled out in the unilateral eczematous irritation of the nipple.

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ANNUAL MEETING

THE MEDICAL SOCIETY OF VIRGINIA

ROANOKE, OCTOBER 14-17, 1956

Unsuspected Chronic Subdural Hematoma

A Five Year Survey

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CHRONIC SUBDURAL HEMATOMA has been regarded as an extremely interesting condition for over a century and in spite of marked advances in diagnosis and treatment, it has continued to perplex even the most astute clinicians. In the eighteenth, nineteenth and early twentieth centuries the lesion was chiefly of interest to pathologists because nearly all cases were diagnosed at autopsy, and it was considered exceedingly rare until it was brought to the serious attention of the medical profession in 1925, by Putnam and Cushing[4]. Since that time many clinics have reported large series of cases that were diagnosed and surgically treated, but rare indeed have been reports of series of cases which were not found until post mortem examination.

The diagnosis and treatment of chronic subdural hematomas have recently been reviewed in this journal by Meredith[3], who has commented on unusual and interesting cases which have been treated at the Medical College of Virginia Hospitals. At this same institution in the five year period from 1947, through 1951, there were 1600 autopsies. In five of these a chronic subdural hematoma was found, which for the purpose of this paper has been defined as appearing to be at least ten days of age (i.e., when membrane formation has taken place), which was not suspected during life.

Report of Cases

Case 1. J.D., a 50 year old white male, was injured in an automobile accident in November, 1947, and was hospitalized elsewhere for a few days because of a small linear fracture at the base of the skull. He did not lose consciousness. Four weeks later he was found dead in his hotel room. Autopsy revealed complete occlusion of the circumflex branch of the left coronary artery and an old subdural hematoma containing about 30 cc. of fluid in the right parietotemporal region. The subdural hematoma was apparently asymptomatic during life.

Case 2. M.M., a 43 year old white male was found lying unconscious at the foot of the steps to his apartment and was dead on arrival at the emergency room. Blood alcohol level was 0.11%. There were abrasions of the skin on the nose and forehead and ecchymoses of the eyelids. Autopsy revealed a marked fatty change in the liver and an acute massive hemorrhage into the already existing membrane of a chronic subdural hematoma, measuring 15 x 9 x 2 cm., and overlying the left parietotemporal region.

Case 3. B.R., a 4 month old Negro female was admitted on January 1, 1949, with a history of an upper respiratory infection for a week with fever and drowsiness and a generalized convulsive seizure several hours before admission. On admission to the hospital she was comatose and having right sided clonic convulsions. Temperature was 103.4° F., pulse 136/min., and respirations 36/min. Examination revealed convergent strabismus, pharyngeal injection with a purulent discharge, moist rales in both lung bases, and a moderately loud systolic murmur audible over the entire precordium. The hemoglobin was 7.5 gm.%, RBC's 3,960,000 mm^3, WBC's 16,400 mm^3, and the peripheral smear showed 58% neutrophils. A lumbar puncture was performed and study of the spinal fluid revealed protein 386 mg.%, sugar 20 mg.%, WBC's 141 mm^3 with 93% neutrophils. Culture of the spinal fluid revealed pneumococci, type 12.

She was treated with blood transfusions and received penicillin intramuscularly and intravenously and sulfadiazine by hypodermoclysis and later by mouth. Mastoidectomies were performed bilaterally and revealed purulent material which had invaded to the dural surface on both sides. Cysternal taps were done daily and penicillin injected intrathecally. The patient responded poorly and remained unconscious throughout the entire hospitalization; she went downhill and expired on the seventeenth hospital day. Autopsy revealed a thick yellowish white exudate on both cerebral hemispheres and an old subdural hematoma with early membrane formation over the posterior aspect of most of the cerebellum

This manuscript is an abridged version of a paper written while Dr. Wright was a senior student at the Medical College of Virginia in 1955.

markedly compressing the left cerebellar hemisphere and vermis.

Case 4. D.W., a 9 month old white female was delivered as a breech and had been quite irritable since birth. Growth and development had apparently been normal. Five weeks before admission she fell from her high chair and since that time had appeared clumsy to members of the family. The night prior to admission she fell from her crib and shortly thereafter became drowsy and developed labored respirations. On admission to the hospital she was unconscious, ashen in color, the anterior fontanel was tense and bulging and the left pupil was larger than the right one. Neither pupil reacted to light. There was massive intraocular hemorrhage obscuring both fundi which appeared to be older than one day. Respiration was stertorous and there was extensor spasm of both upper and lower extremities, about equal on the two sides. Subdural taps were performed bilaterally and 90 cc. and 100 cc. of bright red blood were removed from the right and left sides respectively through the coronal sutures. Very shortly after admission she vomited and aspirated the material. Tracheal aspiration gave some temporary relief but respirations became loud and strong, then quiet and shallow, and finally ceased. Autopsy revealed the membranes of old subdural hematomas over both parietotemporal regions, and acute hemorrhage had occurred into both of these.

Case 5. J.T., a 53 year old Negro male, who had been a known chronic alcoholic for many years and had a history of grand mal convulsive seizures for the previous year, was found in a stuporous condidition and brought to the emergency room. Temperature was 103.4° F., pulse 90/min, and blood pressure 190/150 mm Hg. The right pupil was larger than the left and there was cogwheel rigidity of both arms and the left leg; the right lower extremity was flaccid. Babinski's sign was present on the right and the knee jerk was absent. Lumbar puncture revealed a pressure of 270 mm. H_2O, protein 20 mg.%, and no cells were seen. Examination of the blood revealed hemoglobin 14 gm.%, RBC's 3,320,000 mm^3, WBC's 19,300 mm^3, with 84% neuatrophils, 9% lymphocytes, and 7% blasts. Urinalysis revealed specific gravity of 1.014, albumin 2 plus, and a trace of sugar. Blood sugar was 236 mg.%. The patient died very shortly after arrival at the emergency room. An autopsy revealed early portal cirrhosis and a large subdural hematoma over the right parietotemporal region which appeared to be 10-14 days old. No cerebral damage was evident, and no cause for the seizures could be demonstrated.

In this series, a case of unsuspected chronic subdural hematoma was found in approximately every three hundred and twenty autopsies. In one instance it was encountered incidentally in a patient who died of a coronary artery occlusion. In another, the hematoma was found in an unusual location, the posterior fossa, in an infant with pneumococcic mastoiditis and meningitis who had been treated for three weeks with cysternal taps and penicillin intrathecally. In the other three cases, the patient died rather suddenly and apparently as a result of the chronic hematoma; in two of these death was attributed to acute and massive hemorrhage into the cysts of old subdural hematomas. It is of interest to note that all of these patients were first seen at the Medical College of Virginia Hospital in a state of acute illness or immediately following their demise.

Summary

1. Five recent cases of chronic subdural hematoma that were not suspected during life have been presented. These were found in the autopsy files, of a large teaching hospital in the five year period from 1947 through 1951.

2. Great progress has been made in the last three decades in the recognition and treatment of this condition, but nevertheless chronic cases have escaped detection.

3. A little-known complication of chronic subdural hematomas, that of acute and presumably fatal hemorrhage into the membranous cyst has been demonstrated in two of these cases.

Note: The author wishes to express his appreciation to the Department of Pathology of the Medical College of Virginia, and especially to Dr. Frank L. Apperly, Professor of Pathology, Medical College of Virginia, for invaluable assistance in the preparation of this paper.

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Mission to Baghdad

CHARLES L. OUTLAND, M.D., F.A.P.H.A.
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IN THE Fall of 1955 the World Health Organization asked me to visit Iraq as a consultant to the School Health Service there. Since the original request had come from the government of Iraq, it was thought best that the study commence as early after the opening of schools as possible.

The School Board granted me a "leave of absence", and on October 5, 1955, I went directly to Geneva which is European Headquarters of the United Nations and of its various organizations including the World Health Organization. Here, I was given my first briefing and had an opportunity to learn something about the country of Iraq. Then, I went to Alexandria, Egypt, where the headquarters of the World Health Organization for the Middle East is established. I received further briefing and was sent on to Baghdad, arriving October 15, in rather warm weather—temperature 103 degrees—but not as warm as earlier in the year when the temperature went as high as 120 degrees or more. The humidity is very low—14-16—and believe me, one dries out quite quickly.

The country itself is the area which was formerly known as Mesopotamia, and within its borders are such familiar Bible names as Babylon, Ur of Chaldes, Nineva, Samara and others.

We can divide the country into three parts, northern, central, and southern. In the northern part are found the mountains, hills, and the summer resort areas in the valleys. There is more vegetation in this area, but, for the most part, the hills are bare. One misses the beautiful green hills seen in many countries. Here, also, much of the wheat and barley and other farm products are grown. The temperature is lower and the average rainfall is 16-18 inches, mostly during the months of November, December, and January. The City of Mosul is located in this part and is the second most populous of Iraq. To the southeast of Mosul is the city of Kirkuh where the great oil fields are, also the site of the eternal fires. The eternal fires are caused by escaping gas on the grounds of oil fields. This has been going on for thousands of years and no way has ever been devised to collect the gas. It could be of great financial value if ever a way is found to harness it.

Excerpts from a talk given at the Richmond Academy of Medicine, February 28, 1956.

The central area in which Baghdad is located is desert. Rainfall is about 8 inches per year, and were it not for irrigation, there would be no growth. Fortunately, Baghdad is on the Tigris River and the fields around get water from this and smaller streams.

The southern part borders the Persian Gulf, also the Tigris and Euphrates Rivers join at Basra, the third largest city. Basra is a port city where the the ocean going vessels dock. Humidity is rather high, with an average rainfall of about 20 inches. The area is swampy, marshy, and malaria abounds. The incidence of malaria has been as high as 90-95%. During the past five years, with spraying, ditching, and technical aid from the World Health Organization, the incidence has ben reduced to about 5%.

The public health problems of the country are many. Of course, there are many diseases due to lack of sanitation such as hookroom, round worm, and bilharza. Bilharza is an infection caused by one of the nematodes and manifests itself by blood in the urine. In addition to this, trachoma is very prevalent—as high as 50% of the population have had or have the disease in some districts. With a high incidence of parasites, there is also much anemia. This was noted in most schools visited. At present the larger cities still use cesspools. However, the City of Baghdad has begun construction of a sewerage system. One thing of especial note around Baghdad is what is popularly called Baghdad Boil. This can be eliminated as more and more of the mud dwellings are disposed of since the parasite lives in them during the ovulating stage.

In the school health field, there is much work to be done. However, a beginning has been made. In most areas there is a doctor assigned for this work. He is handicapped for lack of time and distances are great. In order to make a living, as the state only pays him a very small salary ($170 per month) for half time, he must have his private clinic. Therefore, he cannot visit all parts of the area to which he is assigned.

It is my firm belief that, with time, many of these ills will be eliminated as the doctors seem well trained and capable of giving treatment, although there is a shortage of doctors. There are only about 900 in a country whose population is 5,100,000, most of whom live in the larger cities. This, too, will

be overcome as at the medical school in Baghdad, about 100 are graduated each year. Another medical school is being built in Mosul in the northern part of the country and should be ready to operate in two or three years. The future of Iraq looks bright. The government is already building schools, hospitals, improving the old hospitals, dams, bridges, and public works. They will build and expand from the base they already have in medicine, in education, in internal development, and must some day be one of the great states of the Middle East.

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Increase in Scurvy.

The abandonment of "pot liquor" and "milk from the family cow" as traditional baby foods—and neglect of daily orange juice—were blamed for an increase in scurvy among infants in Tennessee.

Dr. Calvin Woodruff said in the June 2nd Journal of the American Medical Association that the number of cases seen at Vanderbilt University Hospital, Nashville, had jumped from eight in 1926-34 to 45 in 1950-54. From 1926 to 1954 there was a total of 103 cases.

Scurvy, caused by a deficiency of ascorbic acid, occurs most frequently between the ages of seven and 11 months. It can produce bone deformities, and its symptoms sometimes are like those of poliomyelitis. Ascorbic acid can be obtained from several sources, including orange juice (probably the best source), fresh unpasteurized milk, tomato juice, and even "pot liquor," the water in which green vegetables and fat meat have been boiled.

The abandonment of these old feeding customs and the sterilization of milk—without substituting anything for these sources of ascorbic acid—have resulted in the increase of scurvy.

Pasteurization of milk is desirable despite the resulting loss of ascorbic acid. Addition of ascorbic acid to baby formulas is a good practice, but the philosophy behind this should not be carried to the point where all nutrients needed by the infant are added to the milk formula. "The most important attribute of a normal complete diet for children is a variety of food and it is the responsibility of parents to help infants develop wide taste acceptance as early in life as possible. The importance of an antiscorbutic (ascorbic acid or a synthetic scurvy preventive) in the diet is a first lesson. Consequently it is unfortunate to have the point of this lesson lost in the maze of fortified formulas and multivitamin preparations with which we are confronted every day. Supplementation by orange or other citrus fruit juice or a vitamin preparation is mandatory, but in many cases has been neglected because this was not recognized, because of lack of adequate medical care or failure to follow medical instructions, and for economic reasons or through ignorance, carelessness, or neglect. . . ."

Symptoms of scurvy, which is sometimes confused with rickets, are varied, but irritability, tenderness of the legs and failure to move or use them are most characteristic. Bleeding of the gums, a high temperature, bone changes, discoloration of eyelids and hemorrhaging skin lesions also appear.

Treatment consists of giving the child a small amount of ascorbic acid, usually in the form of orange juice. The response is dramatic and the infant is usually symptom-free within three or four days.

Public Health . . . .

MACK I. SHANHOLTZ, M.D.
State Health Commissioner of Virginia

Questions and Answers Dealing with Poliomyelitis Vaccine

With the many changes that have taken place in methods of procedure in administering Salk poliomyelitis vaccine, it is natural that confusion has arisen in the minds of many and that numerous questions have been put to the State Department of Health by the citizens in their desire to overcome this genuine bafflement. Believing that these same questions have occurred to others, it has been thought well to present them here with answers compatible with our present knowledge.

What is the dose of vaccine, how many doses are given and at what intervals?

The dose in all cases is 1 cc. Three doses are given, the second, four to six weeks after the first and the third, seven months or more after the second.

What is the maximum effective interval between the first and second doses?

The effect of the first injection will not be lost if the second is delayed for six months to a year, or even longer. There is a word of caution, however. Eighty per cent of children are sensitized by the first dose and in the other 20 per cent the second injection serves as a primary sensitization. Unless the doses are given in the recommended intervals there may be a sense of partial security that does not exist.

Why call the third dose a "booster"?

It has become accepted that the first two doses of Salk vaccine, given from four to six weeks apart, are spoken of as the "primary immunization", the first effective dose being called a "sensitizing dose".

When the third dose is given at least seven months later, the effect produced is called "full immunization". This dose raises the level of antibody titer high above that attained with the first two doses.

How long after the second may the third dose be given and still be effective?

It is recommended that the third dose be given not sooner than seven months and not longer than twelve months after the second. It is believed, however, that it will be effective if given after the latter interval.

What is the preferable route of administration?

Intramuscular injection. This method produces a somewhat higher antibody response than subcutaneous injection.

What is the risk of inducing poliomyelitis infection by the inoculation of vaccine under the present standards of safety?

The risk is negligible.

How long after expiration date is vaccine safe?

Any polio vaccine released or cleared after May 27, 1955, when Minimum Requirements of the Public Health Service were amended, is considered to be safe for an indefinite perod of time after the expiration date. With preservatives now in use and with storage at ordinary refrigerator temperatures, it seems that the present dating of polio vaccine is conservative. It is believed that adequate potency is retained for at least several weeks after the expiration date, and probably much longer, when the vaccine is properly stored.

How long can the vaccine be saved and used after the vial has been gone into?

If a good technique is used in piercing the stopper of the vial, the remaining contents may be kept and used if properly refrigerated.

What is the possibility of vaccinated children transmitting infections to others?

None. There is no live virus in the vaccine to cause infection of the child into whom it is injected.

If the child is in the incubation stage of some other communicable disease at the time an injection is given, will the vaccine be effective?

Viruses, like bacteria, are specific in their stimulation of antibody production and the dose should be effective.

If nose and throat operations are indicated, should they be postponed until some definite interval after administration of the vaccine?

Elective nose and throat operations are not usually performed during periods of high poliomyelitis incidence. If delay will not endanger the patient's life, it would be advisable to give two doses of vaccine and wait until a month after the second dose before

having the operation performed.

Should poliomyelitis vaccine be given during the summer months?

At a meeting held on May 2, 1956, the Surgeon General and other members of the Public Health Service, representatives of professional groups, of the Association of State and Territorial Health Officers, and of the National Foundation for Infantile Paralysis agreed that administration of the vaccine should be continued through the summer months, even in the face of rising incidence of poliomyelitis. This policy has been adopted by the State Department of Health.

MONTHLY REPORT OF BUREAU OF COMMUNICABLE DISEASE CONTROL

	May 1956	May 1955	Jan.-May 1956	Jan.-May 1955
Brucellosis	2	4	7	10
Diphtheria	4	0	21	11
Infec. Hepatitis	43	85	252	688
Measles	5976	719	18845	2647
Meningococcal Infec.	10	5	47	53
Meningitis (Other)	7	--	38	--
Poliomyelitis	1	16	6	24
Rabies (In Animals)	21	17	180	212
Rocky Mt. Spotted Fever	1	6	5	9
Streptococcal Infec.	510	595	3229	4155
Tularemia	1	1	6	6
Typhoid Fever	6	0	13	16

New Physicians' Directory.

The 19th edition of the American Medical Directory, listing almost a quarter million physicians, was published May 26 by the American Medical Association. The edition, the first since 1950, contains 3,122 pages and gives information on 240,638 physicians in the United States, its dependencies and Canada, according to Editor Philip E. Mohr, of the A.M.A. directory department. It also lists American graduates temporarily in foreign countries.

Since the 1950 Directory, more than 250,000 changes of address have been recorded in the files of the directory-biographical department; 46,348 names have been added; 24,225 have been deleted because of death, and 1,172 deleted for other reasons.

In the 1950 Directory, the total number of physicians listed in the United States was 201,277; in the 1956 edition, the number is 218,061, a gain of 16,784.

The Pacific states, as in 1950, show the largest increase in physicians for 1956, with a gain of 23 per cent over the 1950 figures; the South Atlantic and Mountain states show gains of about 16 per cent, and the Central, Middle Atlantic and New England states show small gains. California leads in the number gained, with 20,763 physicians in 1956 as compared with 16,668 in 1950, a gain of 24.6 per cent. Florida, showing an increase of 49.8 per cent, now has 4,530 physicians as compared with 3,025 in 1950. Texas shows a gain of 1,025 physicians; Ohio a gain of 990; Michigan, 963; and New York, 934. Among the smaller states showing a substantial increase in the number of physicians are Arizona, New Mexico, Oregon, and Utah. Slight losses in the number of physicians are indicated in Arkansas, Illinois, Iowa, Missouri, Vermont, and West Virginia.

A table showing the number of physicians by states classified as to type of practice indicates 30 per cent of the physicians in the United States are in general practice; 10 per cent give special attention to a specialty but do not limit their practice to it; 31 per cent limit their practice to a specialty; 11 per cent are serving internships or residences, with an additional 6 per cent in other full-time hospital services; 5 per cent are retired or not in practice; 4 per cent are not in private practice; and 3 per cent are temporarily in military service in various government agencies.

Current Currents

THE ADVISORY COMMITTEE ON POLIOMYELITIS has recommended an extension of the group eligible to receive polio vaccine. The State Department of Health has accepted the recommendation and authorized an extension of the group to include all for whom it is permissible under Federal regulations, namely 0 through 19 years and pregnant women.

THE NEW DIRECTORY of the American Medical Association is reported ready for distribution. The directory, first since 1950, will contain information on more than 240,000 physicians in the United States, the territories and Canada.

More than 250,000 changes of address have been recorded since 1950; 46,348 names have been added; 24,255 have been deleted because of death and 1,172 deleted for other reasons. The total number of physicians listed in the U.S. is 218,061, a gain of 16,784 since 1950.

California, Florida, and Texas have gained the greatest number of physicians. Apparently physicians like the warmer climates.

A copy of the directory will soon be available at State headquarters to assist the staff in better answering your inquiries.

THREE FILMS have been added to the AMA Motion Picture Library for use by state and county medical societies. They are: (1) "Alcohol and the Human Body"—portraying the course that ethyl alcohol takes when it enters the human body in the form of beverages. Black and white—10 minutes; (2) "Heart Disease—Its Major Causes"—consisting of pictures of patients illustrating the various situations that arise from heart disease. Black and white—10 minutes; (3) "Tobacco and the Human Body"—analyzing the contents of tobacco smoke and demonstrating some of the physiological effects of smoking. It sums up the factors to be considered in deciding whether or not to smoke. Black and white—15 minutes.

Further information on any of these films may be obtained from the State Office.

THE AMA PRINTING PLANT is closing after 70 years of operation. The AMA Journal and the various specialty journals will now be printed in Dayton, Ohio. According to AMA, most of its equipment is obsolete, with many of the presses being more than 40 years old. It is believed that the change will bring about a considerable saving in printing costs.

CONTRIBUTE NOW TO THE
AMERICAN MEDICAL EDUCATION FOUNDATION

THE SECOND IN A SERIES of health insurance pamphlets, "Some Fundamentals of Health Insurance", will soon be mailed to the membership. Voluntary health insurance has been developing with great rapidity in recent years and physicians, like many other people, sometimes find it difficult to keep up-to-date on developments. The Committee on Prepaid Hospital Insurance earnestly recommends that our members read the pamphlet carefully.

THE NEW MILITARY DEPENDENT MEDICAL CARE PROGRAM should be of great interest to all practicing physicians since it sets up the financial machinery for furnishing private medical care to hundreds of thousands of wives and children of servicemen. Some pertinent facts concerning the program are outlined below:

All dependents may be treated in military facilities "subject to availability of space, facilities, and capabilities of staff," with the medical officer in charge of making the conclusive determination as to whether the particular facility is able to handle the particular dependent.

Only spouses and children of active duty personnel are eligible for medical care from private physicians and in private facilities "under such insurance, medical service or health plan or plans" as the Secretary of Defense may contract for, after consulting Secretary of Health, Education, and Welfare.

Freedom of choice for spouses and children between military and private facilities is restricted by the following provision: The Secretary of Defense may limit or prohibit the use of private facilities in any area where in his opinion military facilities are adequate to care for the service families.

Private care program will provide: (1) hospitalization in semi-private accommodations up to one year for each admission, including all necessary services and supplies furnished by hospital; (2) medical and surgical care incident to hospitalization; (3) complete obstetrical and maternity service, including prenatal and postnatal care; (4) physician or surgeon's services prior to and following hospitalization for bodily injury or surgery; (5) diagnostic tests and procedures, including laboratory and x-ray examinations accomplished or recommended by the physician incident to hospitalization. *Note:* Also included under private care may be surgery in a physician's office, x-rays or laboratory tests outside the hospitals, but not "what is normally conceived to be outpatient care".

The main problem facing the Department of Defense is that of choosing a workable method of contracting for private medical and hospital care. There are several possibilities: Blue Cross, Blue Shield, arrangements with state medical societies, commercial insurance or home town care with government paying according to fee schedules.

Mental Health . . . .

JOSEPH E. BARRETT, M.D.
Commissioner, Department Mental Hygiene and Hospitals

Who Are the Patients in Our Mental Hospitals?

NOTE: *This is the sixth and last of a series of statistical articles prepared by the Department's Statistician. This article will show the length of stay in hospital and types of patients discharged from the hospitals, with charts which will give graphic pictures of these charactertistics. It is hoped that this and the preceding articles have been of value in informing the medical profession in Virginia regarding patients in the mental hospitals.*
JOSEPH E. BARRETT, M.D.,
Commissioner

The previous articles regarding the characteristics of patients resident in State Hospitals and the admissions to State Hospitals are not entirely complete until the characteristics of patients discharged are added to the picture.

For the fiscal year ending June 30, 1955, except for a few that were known to have died while on trial visit before discharge, there were 2,290 patients discharged alive, either directly from the hospital or after a period of up to one year from trial visit.

Of primary interest of those discharged is the length of stay in the hospital, especially the first admissions, and the improvement from hospitalization.

CHART NO. I—Length of residency in hospital of first admissions discharged from Virginia State Mental Hospitals during the year ended June 30, 1955.

Contributed by EDNA M. LANTZ, *Statistician, Department Mental Hygiene and Hospitals.*

Of the first admissions discharged, which constituted 1,286 patients or 56% of the total discharges, 789 or 61.4% were discharged with less than three months of hospital residency, 322 or 25.0% from three months to one year of residency, and 107 or 8.3% from one to two years. (Chart No. I). This is a total of 94.7% discharged with less than two years of hospital residency.

Of the 1,004 readmissions discharged, 450 or 44.8% were discharged in less than three months residency for this admission, 386 or 38.4% from three months to one year and 118 or 11.8% in one to two years. This totals 954 or 95% discharged after less than two years of residency for this admission. (Chart No. II)

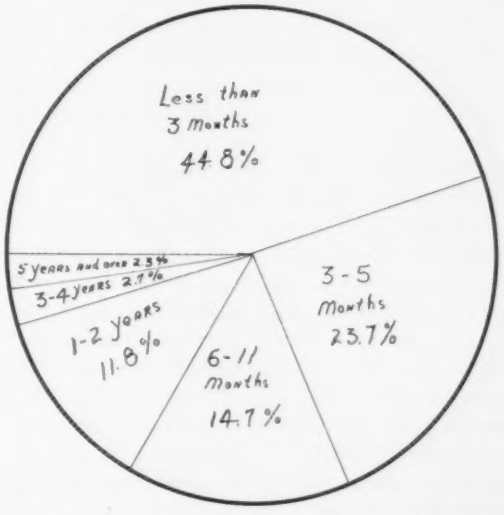

CHART NO. II—Length of residency in hospital for this admission of readmissions discharged from Virginia State Mental Hospitals during the year ended June 30, 1955.

The conditions of patients discharged during the year showed that improvement had been made by their hospitalization. Of the 2,290 discharged, 30.7% were discharged as recovered, 57.0% as improved and 4% as without mental disorder. Thus, only 8.3% were discharged showing no improvement or condition unclassified. (Chart No. III)

The various mental disorders of the 2,290 dis-

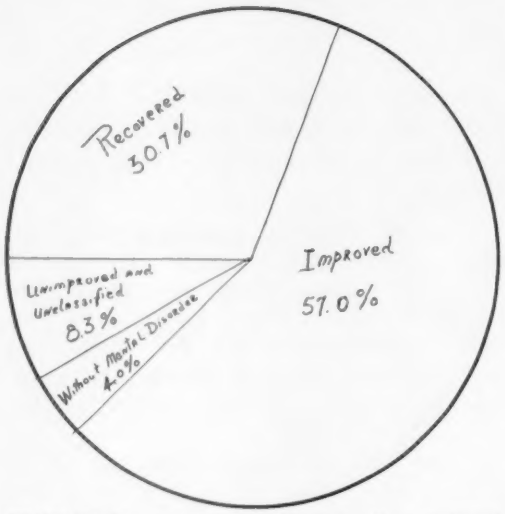

CHART NO. III—Condition on discharge of patients discharged from Virginia State Mental Hospitals during the year ended June 30, 1955.

charges, according to their frequency, are: functional psychosis 37.7%, alcoholics 21.5%, psychoneurosis and personality disorders 12.1%, chronic brain syndromes 5.8%, senile-arteriosclerotics 5.8%, mental deficiency 4.1%, syphilis of C.N.S. 1.9% and all others combined 11.1%.

In this article no comparison of admissions and discharges has been made for the year. The comparison of admissions and discharges for the same year creates a fallacy because they are not the same persons. Many of the discharges are patients that have been admitted in prior years. This article is added to the statistical series as information on the length of stay, classification and condition on release of patients discharged. Special studies are in the planning stage to show the discharge characteristics of the admissions as to rate of release by classification, ages and other characteristics and the results will be published when the studies are completed.

This concludes the present statistical series, with the hope that the information has been of value for more understanding of the patient characteristics in Virginia State Mental Hospitals.

Social Workers in Medical Office.

The medical social worker has moved from the hospital and outpatient clinic to the private physician's office.

Dr. H. M. Margolis and Harold Mendelsohn, M.S.W., Pittsburgh, explained in the May 26th Journal of the American Medical Association the role a social worker can play in a private practice.

The influence of environmental and personal factors upon health is generally recognized today. Physicians often can help the patient solve some of his emotional problems, but if they are too involved or time consuming, a social worker may be invaluable.

Medical social workers have long worked in hospitals and outpatient clinics, usually with indigent patients, but poverty should not be the criterion for need of social work help. The private patient, as well as the indigent, has fears of disease or disability, worries about family adjustment, and dissatisfaction with themselves, their neighbors, or their work—all of which can adversely affect health or recovery. Specially trained to deal with the social stress factors in a patient's life, the social worker can help the patient to understand better the effects of his reactions to many life experiences and pressures in his society.

Such aid can be extended only to selected patients —those who have illnesses directly connected with stress and those who are willing to undertake such treatment. Even with them, the social worker must overcome the patients' resistance to further treatment and their fear that casework implies mental illness or the inability to handle their own problems.

Some patients who have been helped by medical social caseworkers feel that the physician has made it possible for them to work out their problems. They also see this assistance as proof of their physician's real interest in them and as a method of practicing "comprehensive medicine."

Dr. Margolis is from the school of medicine of the University of Pittsburgh and Dr. Mendelsohn from the school of social work.

The Medical Society of Virginia . . . .

The Chicago Conference of Legal Counsel

The following is a brief report covering the activities of the Conference of Legal Counsel for Medical Societies held in Chicago on April 19 and 20, 1956, under the auspices of the American Medical Association.

The conference opened on April 19, with approximately fifty attorneys, thirty or forty Executive Secretaries, and a number of physicians and others present, a total attendance of well over one hundred. The meetings lasted from 9. A. M. to 5 P. M. each day, and the principal subjects discussed were the following:

Organized Medicine and the Anti-trust Laws.
Corporate Practice of Medicine.
Grievance Committee and Disciplinary Proceedings.
Medical Professional Liability.
Interprofessional Codes of Conduct for Physicians and Attorneys.
Lobbying and Tax Problems.

Each subject was allotted a definite period of time, and the discussion of each subject under consideration was handled by a separate panel of four attorneys, the moderator making a general presentation, and the other three speaking on particular phases of the problem. This was followed by a question and answer period of about one hour, in which the several speakers answered written questions submitted by members of the audience. The speakers on the several subjects had been selected because of special knowledge or of experience in connection therewith, and this added greatly to the value of the conference to those in attendance.

It would probably serve no useful purpose to report in detail here on all the panel discussions. However, a few of the highlights should be of interest.

The subject of State and Federal Anti-Trust Laws and their application to organized medicine is involved, highly technical and confusing, and the basic fact situations to which the statutes may be applied are so different that no accurate statement can be made as to what a court will do in a specific case. The general principles of the problem were presented by Mr. A. Leslie Hodson of Chicago, General Counsel for A.M.A., after which the case of *United States* v. *Oregon State Medical Society*, 343 U.S. 326, decided by the Supreme Court of the United States in April, 1952, was discussed by Mr. John J. Coughlin, Attorney for the Oregon State Medical Society, who participated in the trial and the hearing on appeal. The Supreme Court held that the Government had not proved that prepaid medical care as furnished by a non-profit Oregon corporation on a contract basis under a plan sponsored and approved by the Oregon State Medical Society was in violation of the Sherman Act. The failure of the trial court to make findings of fact on the issues, and the direct appeal to the Supreme Court, which eliminated the development of the case in the Circuit Court of Appeals, detracts from the value of the case as authority. Mr. Warren E. Magee, Attorney for the Medical Society of the District of Columbia, then discussed the District Society—A.M.A. case arising out of group health insurance contracts for government employees—a case in which the Supreme Court found the Associations guilty under the Sherman Act and imposed fines. In both of these cases the court ruled on very narrow issues, leaving many important questions open for further decision.

Probably the most vital question under discussion was the Corporate Practice of Medicine. Mr. Howard Hassard, Attorney for the California Medical Association, reported on the protracted litigation in that State dealing with the "Complete Service Bureau", a so-called non-profit corporation organized by laymen to furnish medical care to persons who had purchased health certificates from the corporation at a cost of $2.50 per month. The corporation employed physicians to treat the subscribers. By 1948 it had ten physicians on its staff and a membership of ten thousand. The trial court found in favor of the Bureau, stating in its opinion that we are in a new era of medical care in which legal considerations must give way to the need of low income patients for adequate medical service. The intermediate court of appeals reversed, holding that the activities of the Bureau constituted illegal corporate practice which should be enjoined. The Supreme Court of California reversed the intermediate court, and by a five to two decision affirmed the judgment of the trial court. The case is not in accord with decisions elsewhere, and will probably not be followed in other States.

Mr. Phillip Cless, Attorney for the Iowa State

Medical Society, discussed the case of *Iowa Hospital Association and others* v. *The Iowa Board of Medical Examiners and others,* filed in the District Court for Polk County, Iowa, and decided by Judge Moore on November 28, 1955. The trial lasted for many weeks, and covered the whole field of hospital-physician relationships. Judge Moore made extensive findings of fact on the many issues involved, and, after reviewing the cases with respect to corporate practice of medicine in other States, held that the work of pathologists and radiologists is the practice of medicine, that the practice of the Iowa hospitals in employing pathologists and radiologists on a salary basis and furnishing their services to patients and billing the patients for such service in the name of the hospital constituted illegal practice of medicine by such hospitals, and that under the Iowa statutes the practice of medicine is a personal privilege which can be exercised only by licensed individuals who have established competency. The court further stated that in its opinion the furnishing of proper pathology and x-ray services to patients could be worked out at the local level within the law. The case will be appealed to the Supreme Court of Iowa where the conclusions of law of the trial court will be reviewed and its judgment affirmed or reversed. Mr. Cless is confident that the decision of the lower court is sound and will be sustained when the appeal is heard and decided later this year.

Mr. John Lansdale, Jr., Attorney for the Cleveland Academy of Medicine and the American Society of Anesthesiologists, also appeared on the Corporate Practice of Medicine Panel. He discussed a suit filed by the Cleveland physicians to prohibit Hopkins Clinic from practicing medicine through employed physicians. Fifteen hospitals filed briefs on behalf of the defendant, and a bitter legal battle appeared imminent. At this stage an attempt was made to prepare and make effective an agreement between the Academy of Medicine on behalf of its physician members, and the Cleveland Hospital Council on behalf of its hospital members, resolving the differences between them and setting out a working plan for future operations. The task of finding a satisfactory arrangement was not an easy one, but by mutual concessions and a determination on the part of the leaders of the two groups to end the litigation, such an agreement was worked out and was approved in principal by the two organizations. However, before it was actually signed the hospital administrators objected, and it seems now that the plan may not go into operation. This will mean that the litigation, which has been dormant for many months, will be reopened and pushed to a decision. Mr. Lansdale states that the recent decision in the Iowa case was very helpful in the negotiations leading up to the proposed agreement.

The other discussions were also interesting, informative and helpful, particularly those on Medical Professional Liability, and Legislation, Lobbying and Tax Problems. To even outline the discussions here would take too long. If the transcripts of the discussions are made available by A.M.A., as is now contemplated, then any person interested in a particular subject may be able to obtain the transcript dealing with such subject.

The Conference was well worth while, and like meetings at not too frequent intervals will doubtless be arranged by the legal staff of A.M.A., and should prove of great benefit to attorneys from different areas of the country who are facing similar problems.

ROBERT C. DUVAL, JR.
Attorney.

ANNUAL MEETING
THE MEDICAL SOCIETY OF VIRGINIA
ROANOKE, OCTOBER 14-17, 1956

President's Message . . . .

Sound Off . . .

APPROXIMATELY three-fourths of our Society year has passed and this seems a good time to receive comments, constructive criticisms and pet peeves (if any) from our members.

We have a number of problems that need to be solved—some of them immediately, others over a period of time. Here are a few:

1. Should the Society sponsor a group life insurance plan?
2. Should we increase sickness and accident benefits under our present plan with the Loyalty Group?
3. Should there be a special assessment for the AMEF; or, do you approve the present voluntary approach?
4. Do you like the changes made in the Virginia Medical Monthly? How may it be further improved?
5. Should the Society be more active in the affairs of the Blue Cross-Blue Shield programs?
6. Should we consider the erection of a modern and serviceable headquarters building?
7. Should scholarships be set up for worthy students who will agree to practice in a rural community for a stipulated number of years?
8. What is the best way of utilizing any surplus that may accumulate in our treasury?
9. Do you approve of the present fee schedule for our Veterans Medical Care Program?
10. Should the Society be more active in civil defense?
11. Should we sponsor public relations courses in our two medical schools?
12. Do you like "Current Currents"? Should it be continued as an insert in the Monthly or sent to you separately in news form?
13. What suggestions can you offer to improve our annual meeting. Do you believe cruise conventions advisable?

I am sure that other phases of our Society work will occur to you. Your letter may be addressed to me or to Secretary Bob Howard.

James P. King
President

Editorial....

The Multiple-Authored Medical Article

THE FIRST volume of the Transactions of the American Surgical Association, which appeared in 1883, contained 33 original articles presented by 33 members of this organization. In other words each paper was prepared by a single author and there was no instance of dual authorship. The seventy-first volume of the Transactions of this same association will contain 46 original articles prepared by 116 authors. This means that an average of slightly more than two and one-half authors jointly wrote each article. Only 6 of the 46 papers were prepared by an individual whereas 3 of the articles had 5 authors each.

This situation is not peculiar to the American Surgical Association. Every medical journal shows an increasing number of authors per article. A recent issue of the Journal of the American Medical Association had 9 names affixed to one title. All that was lacking was an asterisk indicating that O'Shaughnessy struck out for Kluszewski in the ninth.

Why has this change come about? Has medicine become so involved and research so complicated that it requires 5 or 6 physicians or research workers to understand and present the information contained in one report? There doubtless are a number of reasons for this change.

Medical research has so many facets and touches so many related sciences that it has become more and more a team effort. This pattern appears to have carried over into other medical writing where research is not involved. Many articles that appear in national journals originate in teaching institutions and are based on work done in large part by junior members of the staff. As many as possible are encouraged to participate in order that they may be stimulated to undertake additional original work on their own. There also is the practical consideration that each participant expends only that fraction of effort that his name represents in terms of the total number of authors and thus he may receive credit for writing several articles for the labor he would expend on one paper if he were the sole author.

Unquestionably there is much to commend the practice but anything that lessens the role of the individual is to be regretted, especially when his field of endeavor is medicine or surgery. The rugged individualist of a half-century or so ago has largely disappeared and nothing highlights this more than the collaboration of half a dozen surgeons in the preparation of an article without their names necessarily being listed alphabetically in the table of contents.

It is impossible to believe that the surgeons listed in the 1883 volume of the Transactions would have participated in such a mass project, so possibly the present method has the additional merit of demonstrating that the young modern doctor is willing to work with his fellow physician in advancing a common cause.

H.J.W.

V.D. Survey In Virginia

"In my opinion there will be no lack of opportunity for the study of neurosyphilis for many years to come. There has been a rather steady decrease in the rate of occurrence of syphilis for several years past; but now the rate of annual decrease has slowed up, and the American Social Hygiene Association is warning of flare-up of the disease, due to juvenile delinquency, lessened appropriations for

the work of control, and lack of trained personnel. Eighteen states have reported epidemics of infectious syphilis, many of the cases in teen-agers. The latest Public Health Service estimate is that in this country 1,921,000 persons have syphilis requiring treatment and 87,000 new infections have occurred in one year."

A.M.A. Archives of Dermatology—May, 1956

"Neurosyphilis in Decline"—A. W. Stillians, M.D.

Attention:

Fellow members of The Medical Society of Virginia—this is a plea for your cooperation in making a State-wide bio-statistical survey of all known cases of venereal diseases in Virginia during the month of July, 1956.

On request of your President, Dr. James W. King, the survey will be conducted by the State Health Department under Commissioner Shanholtz and Dr. W. R. Southward in charge of the Department's Chronic Disease Control Bureau. The object of the survey will be to answer the questions—Is V.D. increasing or decreasing in Virginia—or what is its present status?

Your cooperation is essential.

The V.D. cases may be reported by name or by initials or by a number. The patient's privacy will be respected. All records following the survey will be destroyed.

Please assist your committee on V.D. Control in this survey.

James W. Love, M.D.
Edward P. Cawley, M.D.
Thomas W. Murrell, Jr., M.D.
O. H. McClung, Jr., M.D.
J. H. Irby, M.D.
W. R. Southward, M.D.

Society Proceedings . . . .

Norfolk County Medical Society

Dr. Mallory S. Andrews was installed as president of this Society at its meeting on June 5th. Dr. J. Franklin Waddill was named president-elect; Dr. W. C. Salley, vice-president; Dr. John S. Thiemeyer, Jr., recording secretary; Dr. Robert B. Gahagan, treasurer; Dr. Bernard Lidman, parliamentarian; and Dr. M. Kirwan King, local counsellor.

Roanoke Academy of Medicine.

At the May meeting of the Academy, Dr. David S. Garner was elected president-elect. Officers will be installed in September, and Dr. Harry B. Stone, Jr., will succeed to the presidency. Other officers elected are: Drs. Alexander McCausland and George Bourne, vice-presidents, and Dr. Louis Ripley, secretary-treasurer. New executive committeemen are Drs. Ira Hurt, Philip Trout, Charles Young, Jr., and Collins Nofsinger.

Danville-Pittsylvania Academy of Medicine.

The May meeting of this Society was held at the Country Club. Dr. George E. Schreiner, Georgetown University Medical Center, Washington, D. C., spoke on the "Application of the Artificial Kidney."

Alexandria Medical Society.

At the regular meeting on May 10th, the following officers were elected: President, Dr. Haskins H. Ferrell, Jr.; president-elect, Dr. Eugene R. Grether; vice-president, Dr. James M. Moss; secretary, Dr. Jean Lockhart; and treasurer, Dr. Robert H. Anderson. Drs. Richard E. Palmer, Christopher J. Murphy, Jr., and F. Preston Titus were elected to the Executive Committee.

The Medical Society of the Valley of Virginia

Met in Winchester on May 17th. Dr. Herbert Lee, Richmond, was the guest speaker, his subject being "Pancreatitis". Also on the program were case reports by Dr. George Murphy, Winchester, and Dr. Leland Bown, Staunton.

Virginia Society of Ophthalmology and Otolaryngology.

The 37th Annual Meeting of this Society was a

Convention Cruise to Havana and Nassau on the Queen of Bermuda, sailing from Norfolk on May 26th. Dr. Neil Callahan, Norfolk, was general chairman of the Cruise.

Guest speakers were Dr. R. Cannon Eley, Assistant Clinical Professor of Pediatrics, Harvard University, Boston; Dr. Harold W. Brown, Clinical Professor of Opthalmology, New York University Hospital; Dr. James W. McLaurin, Professor, Department of Otolaryngology, Tulane University, New Orleans; Dr. F. Johnson Putney, Associate Professor of Bronchology and Laryngology, Jefferson University, Philadelphia; Dr. Alston Callahan, President of the Eye Foundation, Birmingham; Dr. Robert L. Goodale, Assistant Professor of Laryngology, Harvard University, Boston; and Mr. Iram H. Brewster, Insurance Executive, Pittsburgh.

Dr. Benjamin Sheppard, Richmond, succeeded Dr. Howard L. Mitchell, Lexington, to the presidency, and the following officers were elected: Dr. Emanuel Wallerstein, Richmond, president-elect; Dr. Calvin Burton, Roanoke, vice-president; and Dr. Maynard P. Smith, Richmond, re-elected secretary-treasurer. Drs. Peter N. Pastore, Richmond; G. S. FitzHugh, Charlottesville; H. L. Mitchell, Lexington; W. C. Anderson, Winchester; Orvin C. Jones, Newport News; R. R. Owens, Jr., Roanoke, and R. O. Smith, Pulaski, were elected to the Executive Council.

There were 115 people registered for the Cruise. The following Virginia doctors and their wives were in attendance: Dr. and Mrs. Walter P. Adams, Norfolk; Dr. and Mrs. W. Clayton Anderson, Winchester; Dr. and Mrs. George S. Bourne, Roanoke; Dr. and Mrs. C. T. Burton, Roanoke; Dr. and Mrs. Edwin W. Burton, Charlottesville; Dr. and Mrs. Neil Callahan, Norfolk; Dr. and Mrs. Edgar Childrey, Jr., Richmond; Dr. and Mrs. Frank D. Daniel, Charlottesville; Dr. and Mrs. Meade Edmunds, Petersburg; Dr. and Mrs. Joseph J. Eller, Marion; Dr. and Mrs. G. S. Fitz-Hugh, Charlottesville; Dr. and Mrs. M. K. Humphries, Jr., Charlottesville; Dr. and Mrs. Orvin C. Jones, Newport News; Dr. and Mrs. Alter Laibstain, Norfolk; Dr. and Mrs. Parker H. Lee, Jr., Lynchburg; Dr. and Mrs. F. H. McGovern, Danville; Dr. and Mrs. Howard L. Mitchell, Lexington; Dr. and Mrs. J. Warren Montague, Richmond; Dr. and Mrs. Richard S. Owens, Jr., Roanoke; Dr. and Mrs. Harry Pariser, Norfolk; Dr. E. W. Perkins, Richmond, Dr. George G. Rhudy, Roanoke; Dr. and Mrs. Emmett V. Richardson, Marion; Dr. and Mrs. John G. Sellers, Norfolk; Dr. and Mrs. L. Benjamin Sheppard, Richmond; Dr. and Mrs. Maynard P. Smith, Richmond; Dr. Richard O. Smith, Pulaski; Dr. and Mrs. Harry B. Stone, Jr., and Dr. and Mrs. Harry B. Stone, Sr., Roanoke.

Richmond Pediatric Society.

At the meeting of this Society in May, Dr. Jay M. Arena, Associate Professor of Pediatrics of Duke University, spoke on Accidental Poisoning in Children.

News . . . .

Calendar of Coming Events

First Inter-American Conference on Occupational Medicine and Toxicology —University of Miami, Miami, Florida—September 3-7.

The Medical Society of Virginia—Hotel Roanoke, Roanoke, Virginia—October 14-17.

Southern Medical Association Golden Anniversary Meeting—Washington, D.C.—November 12-15.

American Public Health Association—84th Annual Meeting—Convention Hall, Atlantic City, New Jersey—November 12-16.

New Members.

The following new members have been admitted into The Medical Society of Virginia, since the list published in the June issue of the Monthly:

Lawrenceville Stanley Cowling, M.D., Newport News

Donald Frank Fletcher, Jr., M.D., Horsey
Robert L. Guillandeu, M.D., Richmond
William Elgin Harmon, M.D., Staunton
Boyd Withers Hayes, Jr., M.D., Richmond
Lewis Edward Jones, M.D., Hampton
Afif A. Khuri, M.D., Charlottesville
Emerson Lynn Kirby, M.D., Richlands
Louis August Leone, M.D., Richmond
Stanley P. Mayers, Jr., M.D., Fieldale
Leroy Sutter McDaniel, M.D., Bon Air
George Edward Mowry, M.D., Wicomico
William F. Schmidt, M.D., Norton
Richard Coffman Shrum, M.D., Charlottesville
George Robert Smith, Jr., M.D., Shawsville.

Commencement Exercises.

Medical College of Virginia

The commencement exercises of the one hundred nineteenth session of the Medical College of Virginia, Richmond, were held on May 29th. The commencement address was given by Dr. William Thomas Sanger, President of the College, his subject being "Three Reminders". Honorary degrees were presented to Dr. Walter B. Martin, Norfolk, and Dr. William R. Laird, Lewisburg, W. Va. Dr. Martin received the Doctor of Science degree and Dr. Laird Doctor of Literature.

Degrees were awarded to 98 in the School of Medicine, 47 in Dentistry, 48 in Pharmacy, 26 in Nursing, 23 in Physical Therapy, 9 in Hospital Administration, and 30 in Medical Technology.

The following are graduates of the Medical School with hospital appointments:

Medical College of Virginia Hospitals, Richmond—Drs. Robert Richardson Bowen, Lynchburg; Barbara Hoskin DeHaven, Norfolk; Echols Alcott Hansbarger, Jr., Charleston, W. Va.; James Richard Sease, Richmond; Clifford Sperow, Martinsburg, W. Va.; Paul Clayton Taylor, Burkeville; and Lawrence Coleman Zacharias, Richmond.

Stuart Circle Hospital, Richmond—Drs. Tony Michael Constant, Suffolk; David Scott Humphries, Beckley, W. Va.; Albert William Moser, Montvale, John Byron Parker, Richmond; James Woodford Proffitt, Richmond; and Bernard Francis Wittkamp, Jr., Richmond.

Johnston-Willis Hospital, Richmond—Drs. Keith Castleton Edmunds, Roanoke; John Russell Good, Richmond; William Rutherford Mauck, Richmond; Charles Hilary Moseley, Jr., South Hill; Fitzhugh Xenophon Muliins, Jr., Highland Springs; Eugene Davis Nolley, Nokesville; Benjamin Rivers Ogburn, Lawrenceville; Frederick Henry Savage, Richmond; David Jessop Skewes, Pocahontas; James Edmond Temple, Lawrenceville; and Edward James Wiley, Jr., Richmond.

DePaul Hospital, Norfolk—Drs. Gerald Wesley Atkinson, Glade Spring; Leigh Oliver Atkinson, Roanoke; William Bauer, Omar, W. Va.; Robert James Buchanan, Portsmouth; Clarence Kinsey Glover, Jr., Falls Church; Panos George Gregoriou, Karavas, Cyprus; and Edward Sidney Hunter, Jr., Richmond.

Norfolk General Hospital, Norfolk—Drs. Gilbert Palmer Blankinship, Lynchburg; Andrew Maurice Fekete, Norfolk; Emma Anne Smith Goldston, Norfolk; and Harriett Evelyn Wood, Roanoke.

Memorial Hospital, Danville—Drs. William Brumhwood Brown, Gloucester; Lester Langdon Gillespie, Coeburn; Donald Thomas Hensley, Midlothian; Louis John Read, Danville; Kenneth Brown Sizer, Buena Vista; and Rheudolph James Wells, Gretna.

United States Naval Hospital, Portsmouth—Drs. Raymond Douglas Dyer, Jr., Radford; Hugh Erskine Fraser, Jr., Richmond; and Lucius Ashton Harrison, Jr., Salem.

Lewis-Gale Hospital, Roanoke—Drs. William Otey McCabe, Jr., Thaxton; Sterling Neblett Ransone, Richmond; Derek William Williams, Richmond; and John William Yost, Tazewell.

University of Virginia Hospital, Charlottesville—Dr. John Randolph Smith, Fieldale.

Memorial Hospital, Charleston, W. Va.—Drs. Richard James Browning, Spencer, W. Va.; William Hammond Canada, Hunttington, W. Va.; Carl Eugene Crimm, Clarksburg, W. Va.; William Alva Deardorff, S. Charleston, W. Va.; Frank Edward Dunlap, St. Albans, W. Va.; Donald Stewart Groves, Summersville, W. Va.; William J. Lawson, Monongah, W. Va.; Laurence Ketler Musselman, Charleston, W. Va.; and Larry Click Smith, Huntington, W. Va.

Ohio Valley General Hospital, Wheeling, W. Va.—Drs. John Joseph Halki, Morgantown, W. Va.; Chester Doan Harman, Onego, W. Va.; Marion Ellis Ingram, Wilkins, W. Va.; and James Caldwell Sams, Huntington, W. Va.

Mercy Hospital, Springfield, Ohio—Drs. Charles Chandler Abby, Waverly; George Lee Fifer, Harrisonburg; Gary Lemasters Ripley, Huntington, W. Va.; and Robert Sullins Smith, Arlington.

Mount Carmel Hospital, Columbus, Ohio—Dr. Charles Richard Blake, St. Mary's W. Va.

Bellevue Hospital, New York, N. Y.—Dr. Thomas Herbert Bain, Crozet.

KINGS COUNTY HOSPITAL, Brooklyn, N. Y.—Drs. Roderick Anthony Comunale, Rahway, N.J.; and Anthony Abraham Deep, Jr., Richmond.

UNION MEMORIAL HOSPITAL, Baltimore, Md.—Drs. William Paul Bennett, Algoma, W. Va.; and Walter Moffett Zirkle, Jr., Harrisonburg.

JOHNS HOPKINS HOSPITAL, Baltimore, Md.—Drs. Richard Page Hudson, Jr., Richmond; and Dorothy Urban Wright, Arlington.

UNITED STATES NAVAL HOSPITAL, Bethesda, Md. —Dr. Howard Boykin Wilkins, Portsmouth.

PHILADELPHIA GENERAL HOSPITAL, Philadelphia, Pa.—Drs. Charles Richard Daniel, Beckley, W. Va.; Donald Sherman Howell, Suffolk; and Russell Lee Hughes, Roanoke.

JEFFERSON MEDICAL COLLEGE HOSPITAL, Philadelphia, Pa.—Dr. Marvin Allen Krane, Richmond.

JACKSON MEMORIAL HOSPITAL, Miami, Fla.—Dr. Francis Gregory Burns, Jr., Triangle.

GRADY MEMORIAL HOSPITAL, Atlanta, Ga.—Drs. Epes Freeman, Blackstone; John Jay Krueger, Jacksonville, Fla.; and Robert John Robertson, Jr., Norfolk.

PIEDMONT HOSPITAL, Atlanta, Ga.—Dr. Nancy Jane Wing, Waterville, Me.

GARFIELD MEMORIAL HOSPITAL, Washington, D. C.—Dr. Elkanah Burns Gray, Lebanon.

THE QUEEN'S HOSPITAL, Honolulu, Hawaii—Dr. William Paul Grigsby, Dublin.

ST. JOSEPH'S HOSPITAL, Phoenix, Ariz.—Dr. William Hale Harper, Elkins, W. Va.

DUKE HOSPITAL, Durham, N. C.—Dr. William Carl Kappes, Jr., Huntington, W. Va.

WATTS HOSPITAL, Durham, N. C.—Drs. Doris Lee Arnold Thurman, Roanoke; and William Allen Thurman, Jr., Vinton.

WILLIAM BEAUMONT ARMY HOSPITAL, El Paso, Tex.—Dr. Daniel Lee Kendrick, Richmond.

SANTA BARBARA COTTAGE HOSPITAL, Santa Barbara, Calif.—Drs. Boyd Hickman May, Jr., Elkins, W. Va.; and Robert Lyle Miles, Wheeling, W. Va.

MASSACHUSETTS GENERAL HOSPITAL, Boston, Mass.—Dr. Robert Keith Osborne, Bloomingdale, Ind.

VIRGINIA MASON HOSPITAL, Seattle, Wash.—Dr. Gerald William Roller, Timberville.

MADIGAN ARMY HOSPITAL, Tacoma, Wash.—Dr. Raymond Dewey Wallace, Jr., South Norfolk.

Drs. Donald Keith Auvil, Parsons, W. Va., and Rosemary Foulger Schellenberg, Wilmington, Del., are also members of the graduating class.

University of Virginia

The Commencement Exercises of the School of Medicine, University of Virginia, were held on June 11th. The following are members of the graduating class with hospital appointments:

UNIVERSITY HOSPITAL, Charlottesville — Drs. Harry S. Abram, Dane R. Boggs, Bennett M. Derby, Lloyd T. Griffith, Ralph W. Hess, Fitz G. Hiestand, Jr., Robert H. Jennings, Bennett W. LaPrade, James I. Masloff, Thomas A. Sydnor, George C. Thrasher, Jr., Reinold E. Weise, and Elisha W. Winfrey, III.

NORFOLK GENERAL HOSPITAL, Norfolk—Drs. George N. Cavros and Robert C. Raynor.

TRIPLER ARMY HOSPITAL, Honolulu, Hawaii—Dr. Elmore J. Becker.

BAYLOR UNIVERSITY HOSPITAL, Dallas, Tex.—Dr. Jack K. Bentley.

CINCINNATI GENERAL HOSPITAL, Cincinnati, Ohio Dr. Peter Bercaw.

GORGAS HOSPITAL, Panama, C. Z.—Dr. Irving D. Hornstein.

BROOKE ARMY HOSPITAL, San Antonio, Tex.—Dr. John V. Bowyer.

MEMORIAL HOSPITAL, Chapel Hill, N. C.—Dr. Andrew G. Briggs, III.

JOHNS HOPKINS HOSPITAL, Baltimore, Md.—Drs. Charles R. Chamberlain and Victor E. Cornett.

CHARITY HOSPITAL, New Orleans, La.—Dr. Joel A. Clark, Jr.

UNION MEMORIAL HOSPITAL, Baltimore, Md.—Dr. Fred N. Cole.

WILLIAM BEAUMONT ARMY HOSPITAL, El Paso, Tex.—Dr. James E. Comer, Jr.

ST. LUKE'S HOSPITAL, New York, N. Y.—Dr. Richard S. Crampton.

UNIVERSITY & HILLMAN CLINIC, Birmingham, Ala.—Dr. William Dakes.

PHILADELPHIA GENERAL HOSPITAL, Philadelphia, Pa.—Dr. William N. Evans.

NEW YORK HOSPITAL, New York, N. Y.—Dr. Thomas M. Fulcher.

UNIVERSITY HOSPITAL, Iowa City, Ia.—Drs. Frederick Gillespie and Thomas L. Gorman.

NEW ENGLAND CENTER, Boston, Mass.—Dr. Carl M. Goldsmith.

UNIVERSITY OF CHICAGO CLINICS, Chicago, Ill. —Drs. Wallace M. Graves, Jr., and Sigmund C. Stein.

UNIVERSITY HOSPITALS, Cleveland, Ohio—Drs. Jack M. Gwaltney, Jr., and Willcos Ruffin, Jr.

FITZSIMONS ARMY HOSPITAL, Denver, Col.—Dr. John S. Hansel, Jr.

Barnes Hospital, St. Louis, Mo.—Dr. Guy M. Harbert, Jr.

University of Arkansas Hospital, Little Rock, Ark.—Dr. Frank M. Johnson.

St. Luke's Hospital, Denver, Col.—Dr. Cooper D. Kunkel, III.

Presbyterian Hospital, New York, N. Y.—Drs. Leavie E. Lee, Jr., and Robert S. Perry.

Albert Einstein Hospital, Philadelphia, Pa.—Dr. Arne S. Levinson.

University of Kansas Medical Center, Kansas City, Kan.—Drs. Martin P. Levinson and Frank C. McCue, III.

Grady Memorial Hospital, Atlanta, Ga.—Drs. Alfred S. Llorens and Thomas N. Rucker.

University of California Hospital, San Francisco, Cal.—Dr. Frank S. MacDonell.

U. S. Naval Hospital, Corona, Cal.—Dr. William A. Manson, Jr.

Strong Memorial Hospital, Rochester, N. Y.—Drs. William M. Massie and Edwin A. Sumpter.

Syracuse Medical Center, Syracuse, N. Y.—Dr. Joseph R. Milligan.

Memorial Hospital, Chapel Hill, N. C.—Dr. Alfon B. Mosca.

Duke Hospital, Durham, N. C.—Dr. Robert A. Nebesar.

Jackson Memorial Hospital, Miami, Fla.—Dr. Stanley S. NeeDell.

Hartford Hospital, Hartford, Conn. — Dr. Charles H. Peterson.

Virginia Mason Clinic, Seattle, Wash.—Dr. William L. Sibley, III.

Hospital of University of Pennsylvania, Philadelphia, Pa.—Dr. Henry H. Sprague.

Watts Hospital, Durham, N. C.—Drs. William J. Thomas and Julian M. Warren.

Emory University Hospital, Emory, Ga.—Dr. Edwin L. Wildner, Jr.

Dr. Collins Honored.

A testimonial dinner was recently given for Dr. Joseph D. Collins, dean of Portsmouth surgeons, by the members of the medical staff of King's Daughters' Hospital and its board of trustees and directors. This was in recognition of fifty-one years of service in the practice of medicine. A portrait of Dr. Collins was unveiled during the evening.

The Ford Foundation Grants.

The second group of voluntary, nonprofit hospitals throughout the United States, Alaska, Hawaii and Puerto Rico, have received their first payments in the Ford Foundation's $200 million program. Some 1,000 hospitals received checks totalling $31,072,150.00 in this second mailing which was made the latter part of May.

Upon completion of this mailing, more than 2,000 private hospitals have received grant payment checks totalling $68,820,950. By the end of July all of the approximately 3,500 participating hospitals will have received payments from the Foundation.

Virginia hospitals on this second group are: Martha Jefferson Hospital and Sanitarium, Charlottesville; The Memorial Hospital, Danville; Raiford Memorial Hospital, Franklin; Mary Washington Hospital Association, Fredericksburg; Hot Springs Valley Nursing Association operating Community House, Hot Springs; The Community Hospital, Martinsville; Mary Immaculate Hospital and Whittaker Memorial Hospital Association, Newport News; Hospital of St. Vincent of Paul and Norfolk Community Hospital Association, Norfolk; Giles Memorial Hospital, Pearisburg; The King's Daughters' Hospital, Portsmouth; The Sheltering Arms Hospital, Richmond; Burrell Memorial Hospital Association, Roanoke; and Wytheville Hospital Corporation, Wytheville.

Dr. Herbert C. Lee,

Richmond, has been elected president of the Virginia Orchid Society. This Society is composed of some fifty amateur orchid growers.

Dr. William R. Tyson,

Norfolk, has received an award for his "distinguished services". For fifteen years he has accompanied school children to Washington in the Safety Patrol's annual trips. The presentation of a paperweight was made at the May meeting of the Norfolk Sports Club.

Dr. Charles W. Whitmore,

Lynchburg, has been appointed medical director for the newly organized First Colony Life Insurance Company.

Dr. R. Finley Gayle,

Richmond, will be one of the speakers at the Annual Medical Symposium of the New Hanover County Medical Society to be held at Wrightsville Beach, N. C., on August 3rd.

Dr. Charles J. Frankel,

Charlottesville, addressed the Charlottesville-Albemarle Bar Association at its meeting in June. His subject was the increasing importance of the relationship between law and medicine.

Dr. G. Watson James, III,

Richmond, has returned from a five-week stay

in Europe during which he visited medical centers. He also presented a paper before the International Congress of Physicians at Hamburg.

Physicians' Liability Insurance Committee Meets.

The Committee on Physicians' Liability Insurance of The Medical Society of Virginia met in Roanoke on May 9 to review the Society sponsored program which has been in effect since January. Meeting with the committee were representatives of Saint Paul-Mercury Indemnity Company who presented an encouraging report on the program's progress for the first 4 months.

According to the agreement between the Society and the Saint Paul Company "A semi-annual, or at least an annual report of losses, reserves and expenses will be made available to the Society's executive office. . . ."

Dr. James L. Chitwood, Pulaski; Dr. Alexander McCausland, Roanoke; Mr. Robert Mairs, Saint Paul-Mercury Indemnity Company, Richmond; Mr. Don Hawkins, Saint Paul-Mercury Indemnity Company, St. Paul, Minnesota; Dr. Louis P. Bailey, Nathalie; Dr. James P. King, Radford; Dr. Frank A. Farmer, Roanoke.

Dr. Kinloch Nelson,

Richmond, was on the program of the Mountaintop Assembly, held in Waynesville, N. C., June 21-23. He spoke on Hyperthyroidism and also on Cardiac Arrhythmias.

Richmond Doctors in Nationwide Study.

The National Disease and Therapeutic Index, a Medical statistical research program, has completed its first three months of operation. Designed to provide information for continuous study of the nature, scope and frequency of occurrence of non-fatal disease, injury, and other conditions as seen by the doctor in private practice in the United States, the program involves the compilation of statistical data showing why the patients see doctors and what types of treatment they receive.

Nearly nine hundred doctors, located in twenty-seven statistically-selected representative areas, have agreed to participate in this important project. More than thirty Richmond area doctors are participating and additional panel members are proceeding rapidly. There are sixteen general practitioners, five internists, six pediatricians, one obstetrician-gynecologist, one urologist and one otolaryngologist.

Dr. Payne Appointed Superintendent.

Dr. Kenneth N. Payne will become superintendent of Pine Camp Hospital, Richmond, on July 1st. He was formerly in charge of the acute and contagious disease ward at the army hospital at Ft. Eustis.

A radical change in the way medical care is provided patients is being put into effect at Pine Camp. Medical care at the hospital will be the joint responsibility of a resident staff of three doctors, headed by Dr. Payne, and a group of consulting specialists who practice in Richmond and teach at the Medical College of Virginia. The city program is to change Pine Camp from a hospital predominantly concerned with treating tuberculous patients to an emphasis on treatment of patients with long-term diseases. Ultimate plans are to use the hospital as a training ground for students at the Medical College of Virginia in care of long-term illnesses.

Pan-Pacific Surgical Association.

The Seventh Congress of the Pan-Pacific Surgical Association will be held in Honolulu, Hawaii, November 14-22, 1957. All members of the profession are invited to attend and are urged to make arrange-

ments as soon as possible if they wish to be assured of adequate facilities.

Further information and brochures may be obtained by writing to Dr. F. J. Pinkerton, Director, General of the Pan-Pacific Surgical Association, Room 230, Young Building, Honolulu, Hawaii.

Course in Postgraduate Gastroenterology.

The American College of Gastroenterology has announced that its annual course in postgraduate gastroenterology will be given at The Roosevelt in New York City on October 18-20, 1956. The subject matter to be covered, from a medical as well as surgical viewpoint, will be essentially the advances in diagnosis and treatment of gastrointestinal diseases and a comprehensive discussion of diseases of the mouth, esophagus, stomach, pancreas, spleen, liver and gallbladder, colon and rectum, with special studies of radiology and gastroscopy.

For further information, write to the College, Department P.G., 33 West 60th Street, New York 23.

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Obituaries . . . .

Dr. William Henry Parker,

Well-known physician of Richmond, died June 13th, having been in ill health for several years. He was eighty-two years of age and graduated from the former University College of Medicine, Richmond, in 1895. Dr. Parker practiced obstetrics for fifty-seven years and delivered 2800 babies during that time. He was best known to the city at large as one who contributed much to the encouragement and development of sports. Dr. Parker was "the father of amateur athletics in Virginia" and was named Virginia Commissioner for the Amateur Athletic Union in 1923. He served as president of the Richmond Baseball team and one of Richmond's athletic fields was named in his honor.

Dr. Parker was a member and chairman of the City Electoral Board and had been medical director of the Mutual Life Insurance Company of Virginia since 1925. He was a Shriner and a Rotarian. Dr. Parker was a Life Member of The Medical Society of Virginia, having joined in 1899.

His wife and three daughter survive him.

Dr. Roger Harold DuBose.

The death of Dr. Roger Harold DuBose on April 2, 1956, marked the passing of one of our most prominent physicians, a pioneer in Pediatrics in this area. He was born in Darlington, South Carolina, October 31, 1891.

Dr. DuBose established practice in Roanoke in May 1922, and became a member of the Second Presbyterian Church.

After completing his medical education at the Medical College of Virginia he entered the Navy leaving with the rank of Lieutenant. He practiced in Norfolk for a short time before going to be with Dr. Charles Gilmore Kerly in New York for his practical training in Pediatrics. He lived a life in his community as a physician true to his calling, one who was willing and particularly capable of meeting every requirement of the child.

Dr. DuBose had been a member of The Medical Society of Virginia since 1923.

He had an unusual capacity for work and one marvelled at his ability to make countless house calls day and night, yet most of all he enjoyed life. Feeding the undernourished child and growing flowers and vegetables in his own garden, most of which he gave to his friends, were among his greatest pleasures. Sharing and playing his practical jokes on both family and clientele, his record stands as an exemplary one of devotion to the ideals of furnishing the best possible medical service to his patients regardless of their economic level in the community. He regarded the affection and respect of his patients as his most valuable possession.

Be It Resolved that The Roanoke Academy of Medicine record in its minutes our sorrow in the passing of Dr. DuBose. That a copy of these resulutions be entered in the minutes of the Society, a copy be forwarded to the family, and a copy sent to The Medical Society of Virginia.

Ruth Barnhart
Hugh H. Trout, Jr.
A. M. Groseclose, *Chairman*

Dr. Robert Hull Courtney,

Richmond ophthalomologist, died May 23rd, having suffered a fall early in May. He was sixty-three years of age and a graduate in medicine from the Medical College of Virginia in 1919. Dr. Courtney was associate professor of physiology and pharmacology at the College before he specialized in eye diseases. He then became an assistant professor of ophthalmology and was made ophthalmologist in chief in 1938. Dr. Courtney was a member of several national medical organizations and had been a member of The Medical Society of Virginia for twenty-nine years. His wife and two children survive him.

Dr. Davis.

Dr. Robert Allen Davis was born in York County, in 1886. Following graduation from Newport News High School, he attended the University of Virginia Medical School, from which he graduated in 1909. He then became a member of the Medical Staff of the Petersburg State Hospital and Eastern State Hospital at Williamsburg. He later was a resident member of the staff of the Chesapeake and Ohio Hospital at Clifton Forge. He then returned to Newport News to enter general practice and later took training in Roentgenology at Harvard Medical School in Boston.

During World War I he served as a Captain in the Medical Corps of the U. S. Army, sixteen months of which time was spent in England and France.

Following his discharge from the Army, he returned to Newport News, to assume charge of the x-ray department at the Elizabeth Buxton Hospital. He continued the practice of his specialty until his sudden and untimely death from coronary thrombosis on April 29, 1956.

Although his primary interest in medicine was in the field of roentgenology, he, nevertheless, was always in close personal contact with his patients and associates. This was evidenced by the fact that he continued engaging in the practice of general medicine for several years following his return to this community after World War I.

He was a member of the Phi Chi Medical Fraternity, Warwick-Newport News Medical Society, The Medical Society of Virginia, American Medical Association, Reontgenologic Society of North America and Virginia Radiological Society.

He was past President of the Seaboard Medical Association and the Warwick County Medical Society.

Dr. Davis was one of the pioneers in Roentgenology in the state. He maintained an unflagging interest and enthusiasm in his chosen specialty.

Dr. Davis had apparently been in excellent health, so that his sudden death came as a great shock to his friends and associates; as did the realization of the great loss suffered by this community.

THEREFORE BE IT RESOLVED that in the death of Dr. Davis this Society has lost a highly respected and much beloved member.

AND BE IT FURTHER RESOLVED that a copy of these resolutions be included in the minutes of the Warwick-Newport News Medical Society and also a copy sent to the bereaved family and one to the Virginia Medical Monthly.

A. A. CREECY
R. PEIRCE, JR.

Dr. Dunkley.

Dr. James H. Dunkley, one of the oldest physicians in the City of Roanoke, died February 6, 1956, after a long illness. He was eighty-six years of age and a graduate of the College of Physicians and Surgeons in Baltimore in 1892.

He practiced in Saltville, Virginia, until he moved to Roanoke in 1912. He was Medical Director of the Shenandoah Life Insurance Company from the date of its organization for twenty-five years, retiring fifteen years ago.

He was a life member of The Medical Society of Virginia having joined in 1901.

THEREFORE, BE IT RESOLVED that the Roanoke Academy of Medicine record in its minutes our sorrow in Dr. Dunkley's passing, that a copy of these resolutions be entered in the minutes of the Society, a copy be forwarded to the family, and a copy be sent to The Medical Society of Virginia.

CHARLES H. PETERSON
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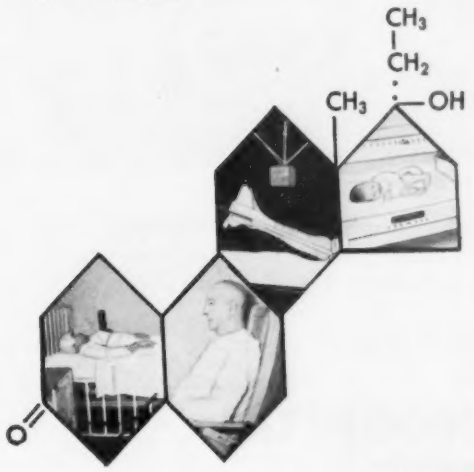

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The next meeting of the Virginia Board of Medical Examiners will be held in the Richmond Hotel, Richmond, Virginia, June 13, 1956. The examinations will be held in the same hotel June 14 to 16, inclusive. All applications and other documents pertaining to the examinations or to matters to be discussed by the Board must be on file in the Secretary's office on or before May 28, 1956. The Secretary of the Board is Dr. K. D. Graves, 631 First Street, S.W., Roanoke, Virginia.

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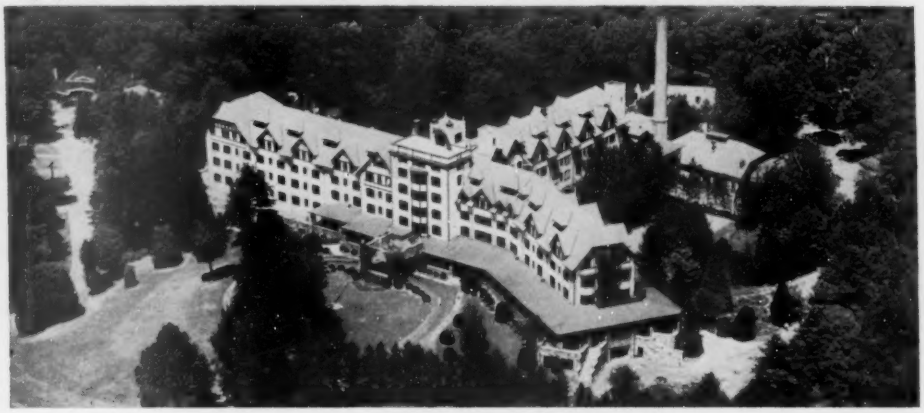

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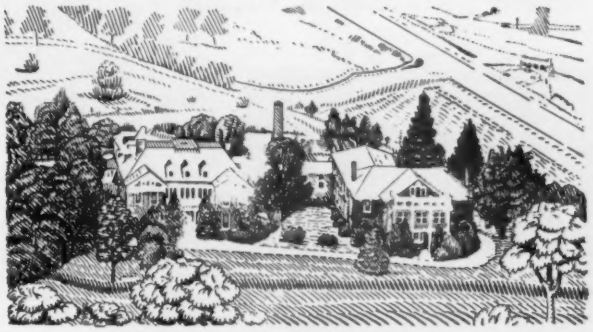

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*Modell, W.: The Relief of Symptoms, Philadelphia, W. B. Saunders Company, 1955, pp. 265-266.

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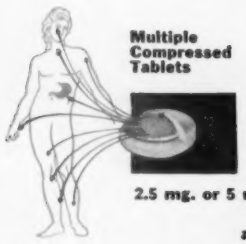

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References: 1. Boland, E. W., *J.A.M.A.* **160**:613, February 25, 1956. 2. Margolis, H. M., *et al.* *J.A.M.A.* **158**:454, June 11, 1955. 3. Bollet, A. J., *et al.* *J.A.M.A.* **158**:459, June 11, 1955.

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[1]Albertson, H.A. and Trout, H. H., Jr.: *Antibiotics Annual* 1954-55, Medical Encyclopedia, Inc., New York, N.Y., 1955, pp. 599-602.

[2]Prigot, A.; Whitaker, J. C.; Shidlovsky, B. A., and Marmell, M.: *ibid*, pp. 603-607.

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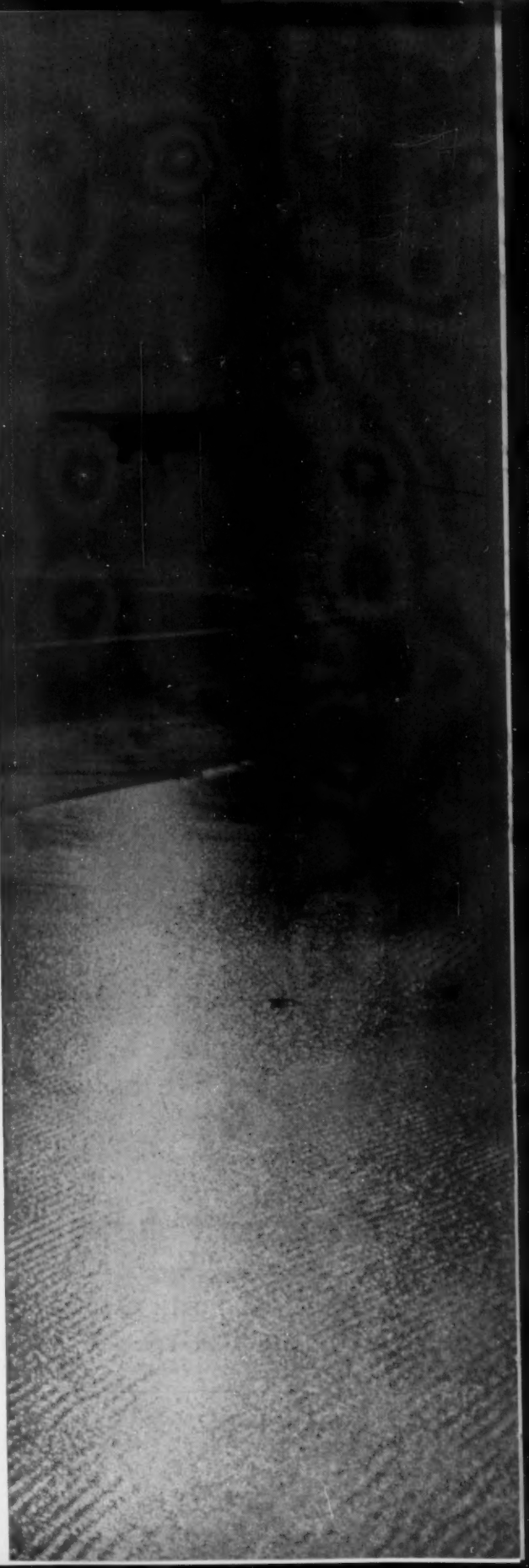

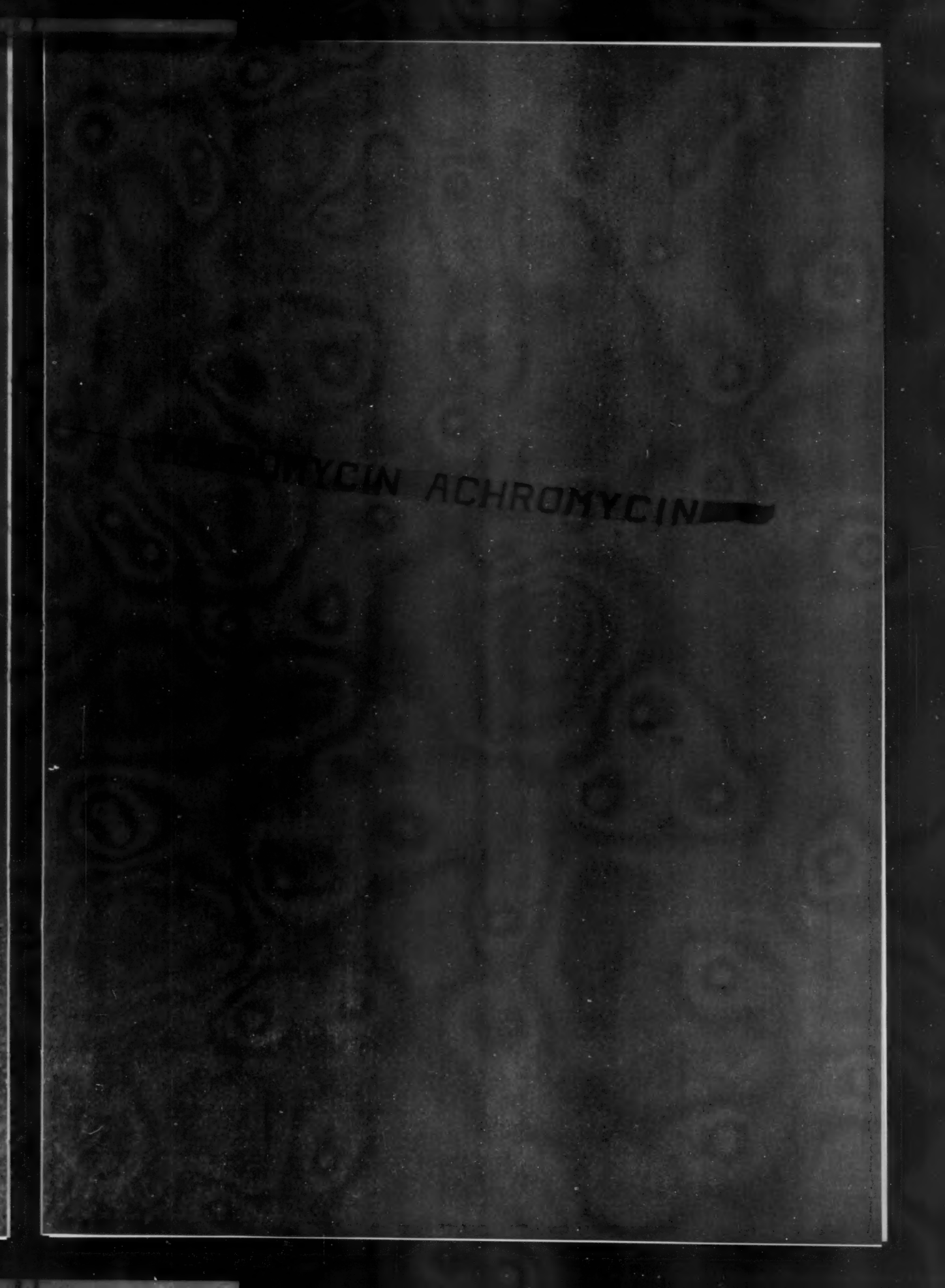
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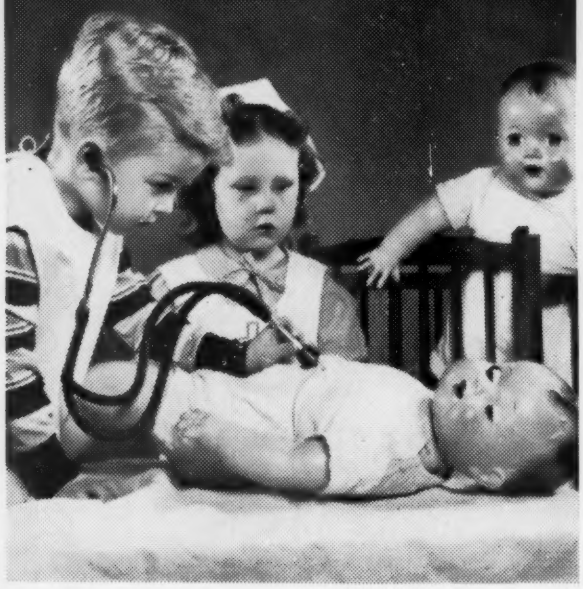

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1. Johnston, T. G., and Cazort, A. G.: J. Allergy 27:90, 1956. 2. Schwartz, E.: New York J. Med. 56:570, 1956. 3. Schiller, I. W., et al.: J. Allergy 27:96, 1956.

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1. Bowes, A. deP.: Dietotherapy—Nutrition of Children During Their School Years, Am. J. Clin. Nutrition 3: 254 (May-June) 1955.
2. Kelly, H. T.: Impact of Modern Nutrition on Twentieth Century Morbidity, Pennsylvania M. J. 58: 481 (May) 1955.
3. Cantarow, A., and Trumper, M.: Clinical Biochemistry, ed. 5, Philadelphia, W. B. Saunders Company, 1955, pp. 139, 140.

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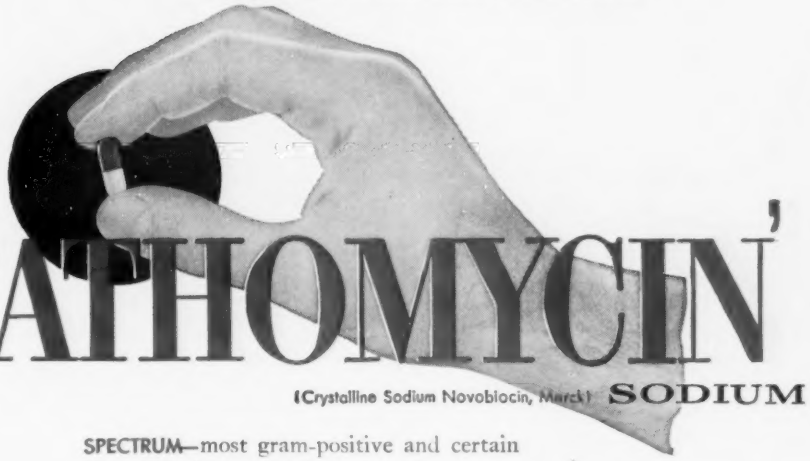

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